


Connecticut's Draft Coastal Management Plan Volume 2: Appendices



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APPENDIX A
COASTAL BOUNDARY

APPENDIX A

Connecticut Coastal Area

Excluded Federal Lands

<u>AGENCY</u>	<u>TOWN</u>	<u>FACILITY</u>	<u>ACREAGE</u>
Department of the Air Force (Corps of Engineers)	Orange West Haven	West Haven and Orange Air National Guard Facility	28.2
Department of the Army (Corps of Engineers)	Westport	Bridgeport Defense Area Nike Battery 73	64.4
	Westport	Bridgeport Defense Area Housing Site	5.6
	Fairfield	Bridgeport Defense Area Nike Battery 65	54.3
	Fairfield	Bridgeport Defense Area Housing Site	7.0
	Bridgeport	Army Reserve Center	5.1
	Stratford	Stratford Army Engine Plant	75.3
	Shelton	Bridgeport Defense Area Housing Site	26.6
	Milford	Bridgeport Defense Area Nike Battery 17	63.4
	Milford	Bridgeport Defense Area Housing Site	5.0
	Milford	Bridgeport Defense Area Tactical Site Support Facility	2.6
	Orange	Bridgeport Defense Area Nike Battery 15	79.6
	Orange	Bridgeport Defense Area Housing Site	9.3
	New Haven	Army Reserve Center	5.6

<u>AGENCY</u>	<u>TOWN</u>	<u>FACILITY</u>	<u>ACREAGE</u>
Department of Commerce	Milford	National Marine Fisheries Service Laboratory	
Department of the Interior (Fish and Wildlife Service)	Westbrook	Salt Meadow National Wildlife Area	183.4
Department of the Interior (Bureau of Land Management)	Stonington	Federally owned mineral rights 75% coal, oil and gas	3.5
Department of the Navy	Stamford	Navy Reserve Training Center	4.5
	Bridgeport	Navy Reserve Training Center	2.7
	New Haven	Navy Reserve Training Center	7.2
	East Lyme	Navy Underwater Sound Laboratory Dodge Pond Annex	24.1
	Waterford	Navy Underwater Sound Laboratory Millstone Research Field Station	9.8
	New London	Navy Underwater Sound Laboratory	25.5
	New London	Naval Submarine Base State Pier	
	Groton	Naval Submarine Base	
Department of Transportation (U.S. Coast Guard)	Greenwich	Great Captain Island Light	0.3
	Stamford	Stamford Channel Lights (2)	0.4

AGENCY

(Continued)
Department of Transportation
(U.S. Coast Guard)

TOWN

FACILITY

ACREAGE

Norwalk	Green Ledge Light Station	1.0
Norwalk	Norwalk Channel Light	0.7
Norwalk	Round Beach Light	0.7
Norwalk	Fitch Point Light	0.7
Norwalk	Long Beach Light	0.3
Bridgeport	Bridgeport Harbor Light	0.2
Bridgeport	Black Rock Harbor Lights (2)	1.4
Bridgeport	Housatonic River Light	0.7
Bridgeport	Penfield Reef Light Station	0.2
Stratford	Stratford Point Light and Housing	1.6
Stratford	Stratford Shoal Light Station	1.0
New Haven	New Haven Station	9.4
Branford	Branford Reef Light	1.0
Guilford	Falkner Island Light Station	5.0
Old Saybrook	Lynde Point Light Station	0.7
Old Saybrook	Brockway Island Light	0.7
Essex	Essex Reef Light	1.1
Old Lyme	Calves Island Light	0.2
Old Lyme	Brockway Reach Light	0.7
New London	U.S. Coast Guard Academy	93.0

<u>AGENCY</u>	<u>TOWN</u>	<u>FACILITY</u>	<u>ACREAGE</u>
(Continued) Dept. of Transportation (U.S. Coast Guard)	New London	Bartlett Point Light	0.7
	New London	Bartlett Reef Light	0.7
	New London	New London Harbor Light	0.2
	New London	Scotch Cap Light	0.7
	New London	Ice House Light	0.7
	New London	New London Station	5.5
	New London	New London Ledge Station	0.1
	New London	New London Depot	1.5
	New London	New London Thames Shipyard	16.1
	Groton	Groton Research and Development Center	
	Groton	Seaflower Reef Light	1.0
	Norwich	Long Reach Lights (2)	1.4
General Services Administration	Bridgeport	U.S. Courthouse - Federal Building	
	New Haven	U.S. Federal Building	
	New London	U.S. Custom House	
Veteran's Administration	New Haven	Veteran's Administration Hospital	47.4

AGENCYTOWNFACILITYACREAGE

POST OFFICE	UNIT	ST ADDRESS	COUNTY	TOT SITE SQ FT
BRANFORD	MAIN OFFICE	1111 MAIN ST	NEW HAVEN	42125
BRANFORD	MAIN OFFICE	PARK PLACE	NEW HAVEN	66000
BRANFORD	SHORT BEACH STA.	BRADLEY AVE & MAIN ST	NEW HAVEN	1118
BRANFORD	STORY CREEK STATION	202 THIMBLE ISLAND RD	NEW HAVEN	4900
BRIDGEPORT	BARNUM STATION	1434 STATE ST	FAIRFIELD	11754
BRIDGEPORT	BEARDSLEY STA	2741 MAIN ST	FAIRFIELD	16456
BRIDGEPORT	EMPLOYEE PARKING	10 MIDDLE STREET	FAIRFIELD	94500
BRIDGEPORT	HILLSIDE STA	36 BOND ST.	FAIRFIELD	4232
BRIDGEPORT	HILLSIDE STA VEH PK	36 BOND ST	FAIRFIELD	6000
BRIDGEPORT	MAIN OFFICE	120 MIDDLE ST	FAIRFIELD	112435
BRIDGEPORT	NEWFIELD STATION	1387 STRATFORD AVE	FAIRFIELD	4486
BRIDGEPORT	NOBLE STATION	934 EAST MAIN STREET	FAIRFIELD	20070
BRIDGEPORT	SSPU - SPATFORD BR.	DOCK SHOPPING PLAZA	FAIRFIELD	132
BRIDGEPORT	STRATFORD BRANCH	MAIN ST & HURD AVE	FAIRFIELD	67300
BRIDGEPORT	TRUMBULL BR	MAIN ST.	FAIRFIELD	32900
BRIDGEPORT	TRUMBULL BR.-PARKING	QUALITY STREET	FAIRFIELD	10500
BRIDGEPORT	V M F	915 HOUSATONIC AVE	FAIRFIELD	36000
BRIDGEPORT	VHF CITY LAND	HAPEL ST	FAIRFIELD	8568
BRIDGEPORT	MAIN OFFICE	MAIN ST	FAIRFIELD	29900
BRIDGEPORT	MAIN OFFICE	2 WEST MAIN ST	MIDDLESEX	21503
BRIDGEPORT	MAIN OFFICE	30 CORBIN DR	MIDDLESEX	28736
BRIDGEPORT	NEOTON HEIGHTS STA.	352 HEIGHTS ROAD	FAIRFIELD	2597
BRIDGEPORT	NEOTON STATION	1939 POST ROAD	FAIRFIELD	991
BRIDGEPORT	PARKING	CORBIN DRIVE	FAIRFIELD	16592
BRIDGEPORT	MAIN OFFICE	MAIN ST.	FAIRFIELD	22464
BRIDGEPORT	MAIN OFFICE	225 BOSTON POST RD	MIDDLESEX	6960
BRIDGEPORT	MAIN OFFICE	MAIN ST	MIDDLESEX	3013
BRIDGEPORT	MPO	1262 POST ROAD	FAIRFIELD	64800
BRIDGEPORT	SAMP HORTON STA.	2055 BLACK ROCK TPKE.	FAIRFIELD	17292
BRIDGEPORT	LEDYARD STATION	COL. LEYD HGHY & IFCB	FAIRFIELD	30722
BRIDGEPORT	MAIN OFFICE	CP OLD MILITARY & WINTHRP	NEW LONDON	11642
BRIDGEPORT	GLENNVILLE STA	GLENN RIDGE RD	FAIRFIELD	30450
BRIDGEPORT	MAIN OFFICE	310 GREENWICH AVE	FAIRFIELD	21623
BRIDGEPORT	WEST FUTHAM AVE. STA.	460 W FUTHAM AVE	FAIRFIELD	41925
BRIDGEPORT	BCFOUGH STA	204 THAMES ST	NEW LONDON	3164
BRIDGEPORT	MAIN OFFICE	100 PLAZA COURT	NEW LONDON	35700
BRIDGEPORT	MAIN OFFICE	PEARL ST	NEW LONDON	6168
BRIDGEPORT	MAIN OFFICE	42 WATER ST	NEW HAVEN	30000
BRIDGEPORT	MAIN OFFICE	78 MAIN ST.	NEW HAVEN	7944
BRIDGEPORT	MAIN OFFICE	781 BOSTON POST ROAD	NEW LONDON	19677
BRIDGEPORT	DEVON STA -DRIVENAY	594 NAUGATUCK AVE	NEW HAVEN	3222
BRIDGEPORT	MAIN OFFICE	6 WEST PIVER STREET	NEW HAVEN	466
BRIDGEPORT	PARCEL POST ANNEX	1400 BOSTON POST RD	NEW HAVEN	25802
BRIDGEPORT	WILDERNESS BEACH S	21 BROADWAY	NEW HAVEN	32442
BRIDGEPORT	WOODMONT STA	27 VILLAGE ROAD	NEW HAVEN	3139
BRIDGEPORT	MAIN OFFICE	MAIN ST	NEW HAVEN	4530
BRIDGEPORT	ADD'L FRKG-KILBY STA.	437 CONGRESS AVENUE	NEW LONDON	694
BRIDGEPORT	ADD'L FRKG - HARDEN STA	DIXWELL AVENUE	NEW HAVEN	1500
BRIDGEPORT	ADD'L FRKG - TERM STA	BREWERY STREET	NEW HAVEN	9900
BRIDGEPORT			NEW HAVEN	123710

Postal Service

AGENCYTOWNFACILITYACREAGE

POST OFFICE	UNIT	ST ADDRESS	COUNTY	TOT SITE SQ FT
NEW HAVEN	AMITY STATION	30 AMITY RD	NEW HAVEN	13876
NEW HAVEN	CENTERVILLE-MT CARMEL	35 NORTH AVENUE	NEW HAVEN	19212
NEW HAVEN	EAST HAVEN BR.	353 1/2 MAIN STREET	NEW HAVEN	17229
NEW HAVEN	EAST HAVEN BR.	509 CAMPELL AVENUE	NEW HAVEN	28340
NEW HAVEN	FAIR HAVEN STA	GRAND AVE	NEW HAVEN	7289
NEW HAVEN	FAIR HAVEN STATION	230 GRAND AVENUE	NEW HAVEN	2071
NEW HAVEN	HARDEN BRANCH	1744 DIXWELL AVENUE	NEW HAVEN	31714
NEW HAVEN	KILBY STA.	730 HCHARD AVENUE	NEW HAVEN	9435
NEW HAVEN	MAIN OFFICE	141 CHURCH STREET	NEW HAVEN	49692
NEW HAVEN	PARKING	VEIS MEMORIAL COLISEUM	NEW HAVEN	12000
NEW HAVEN	TERMINAL ANNEX	50 EREHRY ST	NEW HAVEN	183000
NEW HAVEN	W HAVEN TEMP CARR SPC	719 CAMPELL AVE	NEW HAVEN	18498
NEW HAVEN	WESTVILLE STATION	95 FOUNTAIN STREET	NEW HAVEN	34805
NEW HAVEN	WHITNEYVILLE PARKING	1210 WHITNEY AVENUE	NEW HAVEN	4500
NEW HAVEN	WHITNEYVILLE BR.	40 PUTNAM AVENUE	NEW HAVEN	7040
NEW HAVEN	YALE STA. PKG.	280 CROWN STREET	NEW HAVEN	3600
NEW HAVEN	YALE STATION	ELM & HIGH STS	NEW HAVEN	3229
NEW LONDON	MAIN OFFICE	27 MASCHIC ST	NEW LONDON	52293
NEW LONDON	VEHICLE STORAGE	GOV WINTHROP & ONEIL	NEW LONDON	10200
NEW HAVEN	MAIN OFFICE	74 WASHINGTON AVE	NEW HAVEN	29356
NEW HAVEN	BELDEN STATION	2 BELDEN AVENUE	FAIRFIELD	42983
NEW HAVEN	MAIN OFFICE	16 WASHINGTON ST	FAIRFIELD	51307
NEW HAVEN	ROCKAYTON STA	144 ROCKAYTON AVE	FAIRFIELD	1139
NEW HAVEN	ADDITIONAL PARKING	REAR OF 352 MAIN STREET	NEW LONDON	3072
NEW HAVEN	MAIN OFFICE	340 MAIN ST	NEW LONDON	33035
NEW HAVEN	PARKING (25 SPACES)	LYNE ST	NEW LONDON	7500
NEW HAVEN	MAIN OFFICE	#36 MAIN ST	MIDDLESEX	47320
NEW HAVEN	MAIN OFFICE	36 OLD TAVERN RD	NEW HAVEN	45000
NEW HAVEN	EMPLOYEE PKG	HORE STREET	NEW HAVEN	31110
NEW HAVEN	HUNTINGTON STA.	TAYES	FAIRFIELD	9800
NEW HAVEN	MAIN OFFICE	83 BRIDGE ST	FAIRFIELD	30165
NEW HAVEN	DAVENPORT ST.-PARKING	12 DAVENPORT STREET	FAIRFIELD	19000
NEW HAVEN	GLENEBROOK STA.	370 HOPE STREET	FAIRFIELD	3000
NEW HAVEN	MAIN OFFICE	421 ATLANTIC ST	FAIRFIELD	17000
NEW HAVEN	PRC, FIN. PERS.	365 ATLANTIC ST.	FAIRFIELD	47040
NEW HAVEN	RIDGEWAY STATION	17 DAVENPORT STREET	FAIRFIELD	13752
NEW HAVEN	SPRINGDALE STA.	60 SIXTH ST	FAIRFIELD	24046
NEW HAVEN	VEHICLE PARKING	1004 HORE ST	FAIRFIELD	23492
NEW HAVEN	VNF	70 FEDERAL STREET	FAIRFIELD	5594
NEW HAVEN	MAIN OFFICE	717 WASHINGTON BLVD.	FAIRFIELD	1260
NEW HAVEN	MAIN OFFICE	BROAD STREET	FAIRFIELD	37902
NEW HAVEN	MAIN OFFICE	169 BOSTON POST RD	NEW LONDON	31373
NEW HAVEN	MAIN OFFICE	NORTH MAIN STREET	NEW LONDON	24725
NEW HAVEN	MAIN OFFICE	GOLF LINKS OLD TROLLEY	MIDDLESEX	1637
NEW HAVEN	MAIN OFFICE	154 EAST STATE ST	MIDDLESEX	28582
NEW HAVEN	SAUGATUCK	626 RIVERSIDE AVE	FAIRFIELD	30599
NEW HAVEN	WESTON BRANCH	WESTON RD-RTE 57	FAIRFIELD	10341
NEW HAVEN	WESTON BRANCH	WESTON RD-RTE 57	FAIRFIELD	16140

APPENDIX B

LEGISLATION: 1978 COASTAL MANAGEMENT ACT

CHAPTER 444

COASTAL MANAGEMENT

Sec. 22a-90. Short title. Sections 22a-90 to 22a-96, inclusive, shall be known and may be cited as "The Coastal Management Act."

(P.A. 78-152, S. 1, 11.) Effective July 1, 1979.

Sec. 22a-91. Legislative findings. The general assembly finds that:

- (1) The waters of Long Island Sound and its coastal resources, including tidal rivers, streams and creeks, wetlands and marshes, intertidal mudflats, beaches and dunes, bluffs and headlands, islands, rocky shorefronts, and adjacent shorelands form an integrated natural estuarine ecosystem which is both unique and fragile;
- (2) Development of Connecticut's coastal area has been extensive and has had a significant impact on Long Island Sound and its coastal resources;
- (3) Demand for recreational opportunity in the coastal area, particularly boating and swimming, currently exceeds the capacity of available facilities;
- (4) The waterfront of Connecticut's major urban ports is underutilized and many existing urban waterfront uses are not directly dependent on proximity to coastal waters and
- (5) Despite intensive public involvement in the allocation of coastal resources, major natural features and processes have not been fully protected and beneficial development has been hampered by often contradictory public decisions.

(P.A. 78-152, S. 2, 11.) Effective July 1, 1979.

Sec. 22a-92. Legislative goals and policies. The following goals and policies are established by sections 22a-90 to 22a-96, inclusive:

- (1) To insure that the development, preservation or use of the land and water resources of the coastal area proceeds in a manner consistent with the capability of the land and water resources to support development, preservation or use without significantly disrupting either the natural environment or sound economic growth;
- (2) To preserve and enhance coastal resources in accordance with the policies established by chapters 439, 440, 447, 473, 474 and 477;

(3) To give high priority and preference to uses and facilities which are dependent upon proximity to the water or the shorelands immediately adjacent to marine and tidal waters;

(4) To resolve conflicts between competing uses on the shorelands adjacent to marine and tidal waters by giving preference to uses that minimize adverse impacts on natural coastal resources while providing long term and stable economic benefits;

(5) To consider in the planning process the potential impact of coastal flooding and erosion patterns on coastal development so as to minimize damage to and destruction of life and property and reduce the necessity of public expenditure to protect future development from such hazards;

(6) To encourage public access to the waters of Long Island Sound and to encourage recreational opportunities within the coastal area that are consistent with sound resource conservation procedures and constitutionally protected rights of private property owners;

(7) To conduct, sponsor and assist research in coastal matters to improve the data base upon which coastal land and water use decisions are made;

(8) To coordinate the activities of public agencies to insure that public expenditures enhance development while affording maximum protection to natural coastal resources and processes and

(9) To coordinate planning and regulatory activities of public agencies at all levels of government to insure maximum protection of coastal resources while minimizing conflicts and disruption of economic development.

(P.A. 78-152, S. 3, 11.) Effective July 1, 1979.

Sec. 22a-93. Definitions. For the purposes of sections 22a-90 to 22a-96, inclusive:

(1) "Commissioner" means the commissioner of environmental protection;

(2) "Municipality" means any metropolitan district, town, consolidated town and city, consolidated town and borough, city, borough or village having authority to levy and collect taxes or make charges for its authorized functions, not including individual departments or agencies of municipal governments;

(3) "Coastal area" means those lands described in subsection (a) of section 22a-94;

(4) "Coastal boundary" means the boundary described in subsection (b) of section 22a-94;

(5) "Coastal waters" means those waters of Long Island Sound and its harbors, embayments, tidal rivers, streams and creeks, which contain a measurable quantity or percentage of sea water as established by the United States Geological Survey;

(6) "Public beach" means that portion of the shoreline held in public fee ownership or that portion of the shoreline below the mean high tide elevation that is held in public trust by the state and

(7) "Coastal resources" means the waters of Long Island Sound and its natural resources including tidal rivers, streams and creeks, wetlands and marshes, intertidal mudflats, shellfish, finfish and wildlife habitats, beaches and dunes, bluffs and headlands, islands, rocky shorefronts and adjacent shorelands that together form an integrated natural ecosystem, both terrestrial and estuarine.

(P.A. 78-152, S. 4, 11.) Effective July 1, 1979.

Sec. 22a-94. Coastal area; coastal boundary. Commissioner to prepare maps.

(a) The Connecticut coastal area shall include the land and water within the area delineated by the following: The westerly, southerly and easterly limits of the state's jurisdiction in Long Island Sound; the municipalities of Greenwich, Stamford, Darien, Norwalk, Westport, Fairfield, Bridgeport, Stratford, Shelton, Milford, Orange, West Haven, New Haven, Hamden, North Haven, East Haven, Branford, Guilford, Madison, Clinton, Westbrook, Deep River, Chester, Essex, Old Saybrook, Lyme, Old Lyme, East Lyme, Waterford, New London, Montville, Norwich, Preston, Ledyard, Groton and Stonington.

(b) Within the coastal area, there shall be a coastal boundary which shall be delineated on the landward side by the continuous interior contour elevation of the one hundred year frequency coastal flood zone, as defined and determined by the National Flood Insurance Act, as amended (U.S.C. 42 Section 4101, P.L. 93-234), or a one thousand foot linear setback measured from mean high tide, whichever is farthest; and shall be delineated on the seaward side by the seaward extent of the jurisdiction of the state. The area within the coastal boundary shall include but is not limited to the following: (i) All coastal waters; (ii) all submerged lands under such waters; (iii) all intertidal zones; (iv) all islands surrounded by coastal waters; (v) all natural coastal resources including but not limited to all tidal wetlands and directly adjacent and abutting inland wetlands, bluffs and headlands, rocky shorefronts, water bodies such as rivers, streams, and creeks with measurable salinity and directly adjacent and abutting fresh water, and beaches and sand dunes adjacent to tidal waters.

(c) The coastal boundary as defined in subsection (b) of this section shall be shown on maps or photographs prepared by the commissioner which supplement flood hazard rate maps prepared by the United States Department of Housing and Urban Development under the National Flood Insurance Act. Such maps shall be sufficiently precise to demonstrate whether the holdings of a property owner, or portions thereof, lie within the coastal boundary. Copies of such maps or photographs shall be filed with the commissioner and with the applicable coastal town.

(d) The maps described in subsection (c) of this section shall be promulgated within twenty-four months of July 1, 1979. Prior to final adoption of any map, the commissioner shall hold a public hearing in accordance with the provisions of chapter 54 within the applicable coastal town. The commissioner may use interim maps prepared on United States Geological Survey Topographic base at a scale of one to twenty-four thousand or their metric equivalent. In preparing such interim maps, the commissioner may use any manmade structure, natural feature, property line, preliminary flood hazard boundary maps as prepared by the United

States Department of Housing and Urban Development, or a combination thereof which most closely approximates the landward side of the primary boundary. Further, the commissioner may use city or town property tax maps or aerial photographs, state tidal wetlands photographs, or similar maps of property delineation as they are available.

(e) The commissioner may, from time to time, amend such maps described in subsection (c) of this section. Prior to the adoption of an amendment to any map, the commissioner shall hold a public hearing in the affected municipality in accordance with the provisions of chapter 54.

(P.A. 78-152, S. 5, 11.) Effective July 1, 1979.

Sec. 22a-95. Commissioner and interim study committee to prepare reports; contents. (a) As used in this section and subsection (c) of section 22a-96 "proposed legislation" means the proposed legislation adopted by the Coastal Area Management Advisory Board at their February 1, 1978 meeting; "federal act" means the Coastal Zone Management Act of 1972 (P.L. 92-583) and subsequent amendments.

(b) The commissioner shall, in consultation with the chief executive officers of the municipalities named in subsection (a) of section 22a-94, prepare a report for the joint standing committees on the environment and general law, on or before September 1, 1978 which shall include, but not be limited to the following: (1) An outline of all components of a Connecticut Coastal Management program necessary to comply with the federal act; (2) an analysis of the provisions of the proposed legislation regarding the degree to which the state, in order to comply with the federal act, must participate in planning and regulatory decisions presently made by municipal agencies; (3) a definition and description of "national interest" as used in the proposed legislation including potential projects and the manner in which such projects could be accommodated within the coastal area; (4) an analysis of the extent to which municipal planning and regulatory programs would in practice be strengthened, modified or otherwise affected by compliance with the federal act; (5) guidelines for the implementation of a coastal management program, including standards, criteria and policies to guide state and municipal planning and management decisions in the coastal area and performance guidelines and a performance evaluation procedure for assessing land and water use impacts within the coastal boundary; (6) a model municipal coastal program including the town plan of development, zoning district maps, zoning ordinances and related regulations to illustrate the components of a municipal coastal program consistent with section 6 of the proposed legislation; (7) representative examples of regulations for special coastal management areas referred to in section 32 of the proposed legislation and an estimate of the total land and water acreage that might be considered for state and municipal designation as such areas and (8) suggestions for the utilization and distribution of potentially available state and federal funds for coastal area management.

(c) In furtherance of the goals and policies of sections 22a-90 to 22a-96, inclusive, there is established an interim study committee on coastal area management, consisting of nine members appointed as follows: Six members of the joint standing committee on the environment, appointed by the chairmen of said committee, at least five of whom shall represent districts which include coastal towns and three members of the joint standing committee on general law, appointed by the chair-

men of said committee. The house and senate chairmen and the ranking house and senate minority members of the joint standing committee on the environment shall be ex officio members of said interim study committee, which shall elect a chairman and vice-chairman from among its members.

(d) The interim study committee shall submit to the general assembly, on or before January 1, 1979 a report, prepared in consultation with the chief executive officers of the municipalities named in subsection (a) of section 22a-94, which includes recommendations for legislative action concerning a state coastal management program.

(P.A. 78-152, S. 68, 11.)

Sec. 22a-96. Commissioner authorized to enter into agreements; designated as representative of state. (a) The commissioner is authorized to enter into written agreements with federal agencies concerning the matters set forth in subsection (b) of this section having an interest in or regulatory authority in the coastal area. Such agreements shall be consistent with the provisions of sections 22a-90 to 22a-96, inclusive, and chapters 439, 440, 447, 473, 474 and 477, shall indicate the respective powers and duties of the commissioner and the federal agency or agencies thereunder and shall provide for cooperation and coordination in the implementation of state and federal programs with jurisdiction in the coastal area in a manner consistent with the provisions of sections 22a-90 to 22a-96, inclusive.

(b) Agreements concerning regulatory programs of the U.S. Army Corps of Engineers and the U.S. Coast Guard, Bridges Section, may include the following: (1) Procedures for conducting joint hearings on permit applications; (2) procedures for issuing common and joint application materials and instructions for permit applications; (3) procedures for timely exchange of technical materials related to permit applications and other matters and (4) procedures for coordinating the timing and sequence of the issuance of decisions on permit applications.

(c) The commissioner is authorized to (1) represent the state in formal proceedings regarding "federal consistency" as defined in the federal act; (2) request, receive and administer funds under said act and (3) develop and coordinate, in cooperation with other state agencies, plans to achieve the purposes of sections 22a-90 to 22a-96, inclusive.

(d) The commissioner is designated as the representative of the state in all matters concerning the consistency of federal activities, projects or proposals with the policies and provisions of sections 22a-90 to 22a-96, inclusive.

(P.A. 78-152, S. 7, 9 11.) Effective July 1, 1979.

APPENDIX C

LEGISLATION: 1979 PROPOSED AMENDMENTS



STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION



COASTAL AREA MANAGEMENT PROGRAM

71 CAPITOL AVENUE - HARTFORD, CONNECTICUT 06115 (203) 566-7404

The attached proposed amendments to the Coastal Management Act (P.A. 78-152) are based on a composite of the two versions contained in the Report to the General Assembly by the Interim Study Committee on Coastal Management, dated January, 1979. It has been prepared to utilize the portions of coastal management legislation passed during the 1978 session and combines the major components of the two versions discussed by the Interim Study Committee in a manner that meets federal approval requirements. Its major provisions include:

- (i) Municipal Coastal Site Plan Review (Sections 11-16) giving municipalities authority to review impacts of projects on coastal resources;
- (ii) Definition of adverse impacts for coastal site plan review (Section 3) based on Connecticut's coastal resources;
- (iii) Authority for DEP to promulgate specific, statewide goals and policies (Section 18) by regulation based on policies contained in CAM Planning Report No. 27, Appendix D;
- (iv) Voluntary adoption of municipal coastal programs (Sections 7-10) including revisions to plan of development and zoning regulations;
- (v) Reciprocal "right of party" designation (Sections 21 and 22) for municipalities in DEP regulatory programs and for DEP in coastal site plan review;
- (vi) Percentage allocation of federal funds to municipalities (Section 6) with at least 30% of total for coastal site plan review and up to an additional 20% for municipal coastal program development;
- (vii) Revised definition of municipality (Sections 3 and 16) giving municipalities the right to delegate coastal site plan review authority to special districts and associations;
- (viii) Specific clarification of the role of the Connecticut River Gateway Commission (Section 17) in relation to coastal management;
- (ix) Specific definition of and statement of policy regarding National Interest (Sections 2 and 3);
- (x) Coordination of state plans (Section 23) and state regulatory programs (Section 24) consistent with statewide goals and policies;

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- (xi) Elimination of the definition of public beach (Section 3) that was included as part of last session's Coastal Management Act.

Revisions included in the attached amendments to P.A. 78-152 reflect major points raised by local officials and the general public during the ten public hearings conducted by the legislature's Interim Study Committee on CAM during the fall of 1978. Statutory language used is consistent with that previously reviewed and approved by the federal Office of Coastal Zone Management during their review of the two versions contained in the Interim Study Committee's report.

AJR/dd
2/20/79

PROPOSED AMENDMENTS TO P.A. 78-152, "THE COASTAL
MANAGEMENT ACT"

Section 1. Section 22a-91 of the general statutes is repealed and the following is substituted in lieu thereof:

The general assembly finds that:

(1) The waters of Long Island Sound and its coastal resources, including tidal rivers, streams and creeks, wetlands and marshes, intertidal mudflats, beaches and dunes, bluffs and headlands, islands, rocky shorefronts, and adjacent shorelands form an integrated natural estuarine ecosystem which is both unique and fragile;

(2) Development of Connecticut's coastal area has been extensive and has had a significant impact on Long Island Sound and its coastal resources;

(3) Demand for recreational opportunity in the coastal area, particularly boating and swimming, currently exceeds the capacity of available facilities;

(4) The waterfront of Connecticut's major urban ports is underutilized and many existing urban waterfront uses are not directly dependent on proximity to coastal waters; and

(5) Despite intensive public involvement in the allocation of coastal resources, major natural features and processes have not been fully protected and beneficial development has been hampered by often contradictory public decisions.

(6) THE KEY TO IMPROVED PUBLIC MANAGEMENT OF CONNECTICUT'S COASTAL AREA IS COORDINATION AT ALL LEVELS OF GOVERNMENT AND CONSIDERATION OF THE IMPACT OF DEVELOPMENT ON BOTH COASTAL RESOURCES AND FUTURE WATER-DEPENDENT DEVELOPMENT OPPORTUNITIES BY MUNICIPALITIES WHEN PREPARING PLANS AND REGULATIONS AND REVIEWING MUNICIPAL AND PRIVATE DEVELOPMENT PROPOSALS.

Sec. 2. Section 22a-92 of the general statutes is repealed and the following is substituted in lieu thereof:

The following goals and policies are established by this act:

(1) To insure that the development, preservation or use of the land and water resources of the coastal area proceeds in a manner consistent with the capability

of the land and water resources to support development, preservation or use without significantly disrupting either the natural environment or sound economic growth;

(2) To preserve and enhance coastal resources in accordance with the policies established by chapters 439, 440, 447, 473, 474, 474a and 477 of the general statutes;

(3) To give high priority and preference to uses and facilities which are dependent upon proximity to the water or the shorelands immediately adjacent to marine and tidal waters;

(4) To resolve conflicts between competing uses on the shorelands adjacent to marine and tidal waters by giving preference to uses that minimize adverse impacts on natural coastal resources while providing long term and stable economic benefits;

(5) To consider in the planning process the potential impact of coastal flooding and erosion patterns on coastal development so as to minimize damage to and destruction of life and property and reduce the necessity of public expenditure to protect future development from such hazards;

(6) To encourage public access to the waters of Long Island Sound and to encourage recreational opportunities within the coastal area that are consistent with sound resource conservation procedures and constitutionally protected rights of private property owners;

(7) To conduct, sponsor and assist research in coastal matters to improve the data base upon which coastal land and water use decisions are made;

(8) To coordinate the activities of public agencies to insure that public expenditures enhance development while affording maximum protection to natural coastal resources and processes and

(9) To coordinate planning and regulatory activities of public agencies at all levels of government to insure maximum protection of coastal resources while minimizing conflicts and disruption of economic development.

(10) TO INSURE THAT THE STATE AND COASTAL AREA MUNICIPALITIES PROVIDE ADEQUATE PLANNING FOR FACILITIES AND RESOURCES WHICH ARE OF NATIONAL IMPORTANCE AS DEFINED IN SECTION 3 OF THIS ACT AND, FURTHER, TO INSURE THAT ANY RESTRICTIONS OR EXCLUSIONS OF SUCH FACILITIES OR USES ARE REASONABLE. REASONABLE GROUNDS FOR THE RESTRICTION OR EXCLUSION OF A FACILITY OR USE OF NATIONAL IMPORTANCE SHALL INCLUDE A FINDING THAT SUCH

A FACILITY OR USE 1) MAY REASONABLY BE SITED OUTSIDE THE COASTAL BOUNDARY, 2) FAILS TO MEET ANY APPLICABLE FEDERAL AND STATE ENVIRONMENTAL, HEALTH OR SAFETY STANDARD, OR 3) UNREASONABLY RESTRICTS PHYSICAL OR VISUAL ACCESS TO COASTAL WATERS.

Sec. 3. Section 22a-93 of the general statutes is repealed and the following is substituted in lieu thereof:

For the purposes of this act:

(1) "Commissioner" means the commissioner of environmental protection;

(2) "Municipality" means any [metropolitan district, town, consolidated town and city, consolidated town and borough, city, borough or village having authority to levy and collect taxes or make charges for its authorized functions, not including individual departments or agencies of municipal governments;] TOWN LISTED IN SECTION 5(a) OF THE ACT, THE CITY OF GROTON, THE BOROUGH OF STONINGTON, THE BOROUGH OF GROTON LONG POINT, THE BOROUGH OF FENWICK AND THE BOROUGH OF WOODMONT, BUT DOES NOT INCLUDE ANY SPECIAL DISTRICT;

(3) "Coastal area" means those lands described in subsection (a) of section 5 of this act;

(4) "Coastal boundary" means the boundary described in subsection (b) of section 5 of this act;

(5) "Coastal waters" means those waters of Long Island Sound and its harbors, embayments, tidal rivers, streams and creeks, which contain a [measurable quantity or percentage of sea water as established by the United States Geological Survey;] A SALINITY CONCENTRATION OF AT LEAST 500 PARTS PER MILLION UNDER LOW FLOW STREAM CONDITIONS AS ESTABLISHED BY THE COMMISSIONER;

[(6) "Public beach" means that portion of the shoreline held in public fee ownership or that portion of the shoreline below the mean high tide elevation that is held in public trust by the state and]

(7) "Coastal resources" means [the waters of Long Island Sound and its natural resources including tidal rivers, streams and creeks, wetlands and marshes, intertidal mudflats, shellfish, finfish and wildlife habitats, beaches and dunes, bluffs and headlands, islands, rocky shorefronts and adjacent shorelands that together form an integrated natural ecosystem, both terrestrial and estuarine.] THE COASTAL WATERS OF THE STATE, THEIR NATURAL RESOURCES, RELATED MARINE AND WILDLIFE HABITAT AND ADJACENT SHORELANDS, BOTH

DEVELOPED AND UNDEVELOPED, THAT TOGETHER FORM AN INTEGRATED TERRESTRIAL AND ESTUARINE ECOSYSTEM; THE TERM INCLUDES THE FOLLOWING SPECIFIC RESOURCES:

(a) "COASTAL BLUFFS AND ESCARPMENTS" - NATURALLY ERODING SHORELANDS MARKED BY DYNAMIC ESCARPMENTS OR SEA CLIFFS WHICH HAVE SLOPE ANGLES THAT CONSTITUTE AN INTRICATE ADJUSTMENT BETWEEN EROSION, SUBSTRATE, DRAINAGE AND DEGREE OF PLANT COVER;

(b) "ROCKY SHOREFRONTS" - SHOREFRONT COMPOSED OF BEDROCK, BOULDERS AND COBBLES THAT ARE HIGHLY EROSION RESISTANT AND ARE AN INSIGNIFICANT SOURCE OF SEDIMENTS FOR OTHER COASTAL LANDFORMS;

(c) "BEACHES AND DUNES" - BEACH SYSTEMS INCLUDING BARRIER BEACH SPITS AND TOMBOLOS, BARRIER BEACHES, POCKET BEACHES, LAND CONTACT BEACHES AND RELATED DUNES AND SANDFLATS;

(d) "INTERTIDAL FLATS" - VERY GENTLY SLOPING OR FLAT AREAS LOCATED BETWEEN HIGH AND LOW TIDES COMPOSED OF MUDDY, SILTY AND FINE SANDY SEDIMENTS AND GENERALLY DEVOID OF VEGETATION;

(e) "TIDAL WETLANDS" - INCLUDE AREAS DEFINED AS "WETLAND" BY SECTION 22a-29 OF THE GENERAL STATUTES;

(f) "FRESHWATER WETLANDS AND WATER COURSES" - INCLUDES AREAS DEFINED AS "WETLANDS" OR "WATER COURSES" BY SECTION 22a-38 OF THE GENERAL STATUTES;

(g) "ESTUARINE EMBAYMENTS" - A PROTECTED COASTAL BODY OF WATER WITH AN OPEN CONNECTION TO THE SEA IN WHICH SALINE SEA WATER IS MEASURABLY DILUTED BY FRESHWATER INCLUDING TIDAL RIVERS, BAYS, LAGOONS, AND COVES;

(h) "COASTAL HAZARD AREAS" - THOSE LAND AREAS INUNDATED DURING NORMAL OR EXTREME COASTAL STORM EVENTS OR SUBJECT TO EROSION INDUCED BY SUCH EVENTS (ALL FLOOD HAZARD AREAS AS DEFINED AND DETERMINED BY THE NATIONAL FLOOD INSURANCE ACT, AS AMENDED (U.S.C. 42 SECTION 4101, P.L. 93-234) AND IDENTIFIED BY MAPPING UNDER THE EMERGENCY AND REGULAR PROGRAM PHASES AND ALL EROSION HAZARD AREAS AS DETERMINED BY THE COMMISSIONER);

(i) "URBAN SHOREFRONT" - THOSE HARBOR AREAS WHICH HAVE BEEN HIGHLY ENGINEERED AND DEVELOPED RESULTING IN THE FUNCTIONAL IMPAIRMENT OR SUBSTANTIAL ALTERATION OF THEIR NATURAL PHYSIOGRAPHIC FEATURES OR SYSTEMS;

(j) "ISLAND" - A PORTION OF LAND SURROUNDED ON ALL SIDES BY WATER;

(k) "NEARSHORE WATERS" - THE AREA COMPRISED OF THOSE WATERS AND THEIR SUBSTRATES LYING BETWEEN MEAN HIGH WATER AND A DEPTH APPROXIMATED BY THE TEN METER CONTOUR;

(l) "OFFSHORE WATERS" - THE AREA COMPRISED OF

THOSE WATERS AND THEIR SUBSTRATES LYING SEAWARD OF A DEPTH APPROXIMATED BY THE TEN METER CONTOUR;

(m) "SHORELANDS" - THOSE LAND AREAS WITHIN THE COASTAL BOUNDARY EXCLUSIVE OF FLOOD AND EROSION HAZARD AREAS, WHICH ARE NOT SUBJECT TO DYNAMIC COASTAL PROCESSES AND WHICH ARE COMPRISED OF TYPICAL UPLAND FEATURES SUCH AS BEDROCK HILLS, TILL HILLS, AND DRUMLINS;

(n) "SHELLFISH CONCENTRATION AREAS" MEANS AREAS IN COASTAL WATERS, ACTUAL, POTENTIAL OR HISTORIC, IN WHICH ONE OR MORE SPECIES OF SHELLFISH AGGREGATE;

(8) "ZONING COMMISSION" MEANS THE MUNICIPAL ZONING COMMISSION ESTABLISHED UNDER SECTION 8-1 OF THE GENERAL STATUTES OR BY SPECIAL ACT OR THE COMBINED PLANNING AND ZONING COMMISSION ESTABLISHED UNDER SECTION 8-4a OF THE GENERAL STATUTES;

(9) "PLANNING COMMISSION" MEANS THE MUNICIPAL PLANNING COMMISSION ESTABLISHED UNDER SECTION 8-19 OF THE GENERAL STATUTES OR BY SPECIAL ACT OR THE COMBINED PLANNING AND ZONING COMMISSION ESTABLISHED UNDER SECTION 8-4a OF THE GENERAL STATUTES;

(10) "MUNICIPAL COASTAL PLANS" MEANS THE PLANS LISTED IN SECTIONS 7(b)(1) AND 7(d) OF THIS ACT;

(11) "MUNICIPAL COASTAL REGULATIONS" MEANS THE REGULATIONS AND ORDINANCES LISTED IN SECTION 7(b)(2) OF THIS ACT;

(12) "FEDERAL COASTAL ZONE MANAGEMENT ACT" AND "FEDERAL ACT" MEAN THE U.S. COASTAL ZONE MANAGEMENT ACT OF 1972, AS AMENDED (P.L. 92-583);

(13) "COASTAL SITE PLANS" MEANS THE SITE PLANS, APPLICATIONS AND PROJECT REFERRALS LISTED IN SECTION 11 OF THIS ACT;

(14) "FACILITIES AND RESOURCES WHICH ARE OF NATIONAL IMPORTANCE" MEANS: (a) ADEQUATE PROTECTION OF TIDAL WETLANDS AND RELATED ESTUARINE RESOURCES, (b) RESTORATION AND ENHANCEMENT OF CONNECTICUT'S SHELLFISH INDUSTRY, (c) RESTORATION, PRESERVATION AND ENHANCEMENT OF THE STATE'S RECREATIONAL AND COMMERCIAL FISHERIES, INCLUDING ANADROMOUS SPECIES, (d) WATER POLLUTION CONTROL MEASURES AND FACILITIES CONSISTENT WITH THE REQUIREMENTS OF THE FEDERAL CLEAN WATER ACT, AS AMENDED, (e) AIR POLLUTION CONTROL MEASURES AND FACILITIES CONSISTENT WITH THE REQUIREMENTS OF THE FEDERAL CLEAN AIR ACT, AS AMENDED, (f) CONTINUED OPERATION OF EXISTING FEDERALLY FUNDED DREDGED AND MAINTAINED NAVIGATION CHANNELS AND BASINS, (g) ENERGY FACILITIES SERVING STATEWIDE AND INTERSTATE MARKETS, INCLUDING ELECTRIC GENERATING FACILITIES AND FACILITIES FOR STORAGE, RECEIVING OR PROCESSING PETROLEUM PRODUCTS AND OTHER

FUELS, (h) IMPROVEMENTS TO THE EXISTING INTERSTATE RAIL, HIGHWAY AND WATERBORNE TRANSPORTATION SYSTEM, (i) PROVISION OF ADEQUATE STATE OR FEDERALLY OWNED MARINE-RELATED RECREATIONAL FACILITIES, INCLUDING NATURAL AREAS AND WILDLIFE SANCTUARIES AND (j) ESSENTIAL MAINTENANCE AND ENHANCEMENT OF EXISTING WATER-DEPENDENT MILITARY, NAVIGATIONAL, RESOURCE MANAGEMENT AND RESEARCH FACILITIES.

(15) "ADVERSE IMPACTS ON COASTAL RESOURCES" -INCLUDES BUT IS NOT LIMITED TO:

(a) DEGRADING WATER QUALITY THROUGH THE SIGNIFICANT INTRODUCTION INTO COASTAL WATERS OF SUSPENDED SOLIDS, NUTRIENTS, TOXICS, HEAVY METALS, OR PATHOGENS OR THROUGH THE SIGNIFICANT ALTERATION OF TEMPERATURE, pH, DISSOLVED OXYGEN, OR SALINITY;

(b) DEGRADING EXISTING CIRCULATION PATTERNS OF COASTAL WATERS THROUGH THE SIGNIFICANT ALTERATION OF TIDAL EXCHANGE OR FLUSHING RATES, FRESHWATER INPUT, OR EXISTING BASIN CHARACTERISTICS AND CHANNEL CONTOURS;

(c) DEGRADING NATURAL EROSION PATTERNS THROUGH THE SIGNIFICANT ALTERATION OF LITTORAL TRANSPORT OF SEDIMENTS IN TERMS OF DEPOSITION OR SOURCE REDUCTION;

(d) DEGRADING NATURAL OR EXISTING DRAINAGE PATTERNS THROUGH THE SIGNIFICANT ALTERATION OF GROUNDWATER FLOW AND RECHARGE AND VOLUME OF RUNOFF;

(e) INCREASING THE HAZARD OF COASTAL FLOODING THROUGH SIGNIFICANT ALTERATION OF SHORELINE CONFIGURATIONS OR BATHYMETRY, PARTICULARLY WITHIN HIGH VELOCITY FLOOD ZONES;

(f) DEGRADING VISUAL QUALITY THROUGH SIGNIFICANT ALTERATION OF THE NATURAL FEATURES OF VISTAS AND VIEWPOINTS;

(g) DEGRADING OR DESTROYING ESSENTIAL WILDLIFE, FINFISH OR SHELLFISH HABITAT THROUGH SIGNIFICANT ALTERATION OF THE COMPOSITION, MIGRATION PATTERNS, DISTRIBUTION, BREEDING OR OTHER POPULATION CHARACTERISTICS OF THE NATURAL SPECIES OR SIGNIFICANT ALTERATION OF THE NATURAL COMPONENTS OF THE HABITAT; AND

(h) DEGRADING TIDAL WETLANDS, BEACHES AND DUNES, ROCKY SHOREFRONTS, AND BLUFFS AND ESCARPMENTS THROUGH SIGNIFICANT ALTERATION OF THEIR NATURAL CHARACTERISTICS OR FUNCTION.

Sec. 4. Section 22a-94 of the general statutes is repealed and the following is substituted in lieu thereof:

(a) The Connecticut coastal area shall include

the land and water within the area delineated by the following: The westerly, southerly and easterly limits of the state's jurisdiction in Long Island Sound; the [municipalities] TOWNS of Greenwich, Stamford, Darien, Norwalk, Westport, Fairfield, Bridgeport, Stratford, Shelton, Milford, Orange, West Haven, New Haven, Hamden, North Haven, East Haven, Branford, Guilford, Madison, Clinton, Westbrook, Deep River, Chester, Essex, Old Saybrook, Lyme, Old Lyme, East Lyme, Waterford, New London, Montville, Norwich, Preston, Ledyard, Groton and Stonington.

(b) Within the coastal area, there shall be a coastal boundary which shall be A CONTINUOUS LINE delineated on the landward side by the [continuous] interior contour elevation of the one hundred year frequency coastal flood zone, as defined and determined by the National Flood Insurance Act, as amended (U.S.C. 42 Section 4101, P.L. 93-234), or a one thousand foot linear setback measured from THE mean high [tide,] WATER MARK IN COASTAL WATERS, OR A ONE THOUSAND FOOT LINEAR SETBACK MEASURED FROM THE INLAND BOUNDARY OF TIDAL WETLANDS MAPPED UNDER SECTION 22a-30 OF THE GENERAL STATUTES, whichever is farthest INLAND; and shall be delineated on the seaward side by the seaward extent of the jurisdiction of the state. [The area within the coastal boundary shall include but is not limited to the following: (i) All coastal waters; (ii) all submerged lands under such waters; (iii) all intertidal zones; (iv) all islands surrounded by coastal waters; (v) all natural coastal resources including but not limited to all tidal wetlands and directly adjacent and abutting inland wetlands, bluffs and headlands, rocky shorefronts, water bodies such as rivers, streams, and creeks with measurable salinity and directly adjacent and abutting fresh water, and beaches and sand dunes adjacent to tidal waters.]

(c) The coastal boundary as defined in subsection (b) of this section shall be shown on maps or photographs prepared by the commissioner which supplement flood hazard rate maps prepared by the United States Department of Housing and Urban Development under the National Flood Insurance Act. Such maps shall be sufficiently precise to demonstrate whether the holdings of a property owner, or portions thereof, lie within the coastal boundary. THE COMMISSIONER MAY, AFTER CONSULTATION WITH AND APPROVAL BY THE MUNICIPAL PLANNING COMMISSION, OR WHERE THE MUNICIPALITY HAS NO PLANNING COMMISSION AFTER CONSULTATION WITH AND APPROVAL

BY THE MUNICIPAL ZONING COMMISSION, DELINEATE THE COASTAL BOUNDARY BY ROADS, PROPERTY LINES OR OTHER IDENTIFIABLE NATURAL OR MANMADE FEATURES, PROVIDED THAT ANY SUCH DELINEATION SHALL APPROXIMATE AND IN NO EVENT DIMINISH THE AREA WITHIN THE COASTAL BOUNDARY AS DEFINED BY THE CRITERIA LISTED IN SUBSECTION (b). Copies of such maps or photographs shall be filed with the commissioner and with the [applicable] CLERK OF EACH coastal [town] MUNICIPALITY.

(d) The maps described in subsection (c) of this section shall be promulgated within twenty-four months of the effective date of this act. Prior to final adoption of any map, the commissioner shall hold a public hearing in accordance with the provisions of chapter 54 of the general statutes within the applicable coastal town. The commissioner may use interim maps prepared on United States Geological Survey Topographic base at a scale of one to twenty-four thousand or their metric equivalent. In preparing such interim maps, the commissioner may use any manmade structure, natural feature, property line, preliminary flood hazard boundary maps as prepared by the United States Department of Housing and Urban Development, or a combination thereof which most closely approximates the landward side of the primary boundary. Further, the commissioner may use city or town property tax maps or aerial photographs, state tidal wetlands photographs, or similar maps of property delineation as they are available.

(e) The commissioner may, from time to time, amend such maps described in subsection (c) of this section. Prior to the adoption of an amendment to any map, the commissioner shall hold a public hearing in the affected municipality in accordance with the provisions of chapter 54 of the general statutes.

(f) ANY PROPERTY OR PORTION OF PROPERTY LYING WITHIN THE AREA DETERMINED BY THE COASTAL BOUNDARY AS DELINEATED BY THE MAPS IN SUBSECTIONS (c) OR (d) AS APPROPRIATE SHALL BE SUBJECT TO THE REGULATORY, DEVELOPMENT AND PLANNING REQUIREMENTS OF THIS ACT.

Sec. 5. Section 22a-95 of the general statutes is repealed and the following is substituted in lieu thereof:

[(a) As used in this section and subsection (c) of section 22a-96 "proposed legislation" means the

proposed legislation adopted by the Coastal Area Management Advisory Board at their February 1, 1978 meeting; "federal act" means the Coastal Zone Management Act of 1972 (P.L. 92-583) and subsequent amendments.

(b) The commissioner shall, in consultation with the chief executive officers of the municipalities named in subsection (a) of section 22a-94, prepare a report for the joint standing committees on the environment and general law, on or before September 1, 1978 which shall include, but not be limited to the following: (1) An outline of all components of a Connecticut Coastal Management program necessary to comply with the federal act; (2) an analysis of the provisions of the proposed legislation regarding the degree to which the state, in order to comply with the federal act, must participate in planning and regulatory decisions presently made by municipal agencies; (3) a definition and description of "national interest" as used in the proposed legislation including potential projects and the manner in which such projects could be accommodated within the coastal area; (4) an analysis of the extent to which municipal planning and regulatory programs would in practice be strengthened, modified or otherwise affected by compliance with the federal act; (5) guidelines for the implementation of a coastal management program, including standards, criteria and policies to guide state and municipal planning and management decisions in the coastal area and performance guidelines and a performance evaluation procedure for assessing land and water use impacts within the coastal boundary; (6) a model municipal coastal program including the town plan of development, zoning district maps, zoning ordinances and related regulations to illustrate the components of a municipal coastal program consistent with section 6 of the proposed legislation; (7) representative examples of regulations for special coastal management areas referred to in section 32 of the proposed legislation and an estimate of the total land and water acreage that might be considered for state and municipal designation as such areas and (8) suggestions for the utilization and distribution of potentially available state and federal funds for coastal area management.

(c) In furtherance of the goals and policies of sections 22a-90 to 22a-96, inclusive, there is established an interim study committee on coastal area management, consisting of nine members appointed as

follows: Six members of the joint standing committee on the environment, appointed by the chairmen of said committee, at least five of whom shall represent districts which include coastal towns and three members of the joint standing committee on general law, appointed by the chairmen of said committee. The house and senate chairmen and the ranking house and senate minority members of the joint standing committee on the environment shall be ex officio members of said interim study committee, which shall elect a chairman and vice-chairman from among its members.

(d) The interim study committee shall submit to the general assembly, on or before January 1, 1979 a report, prepared in consultation with the chief executive officers of the municipalities named in subsection (a) of section 22a-94, which includes recommendations for legislative action concerning a state coastal management program.]

(a) THE COMMISSIONER SHALL, ON A CONTINUING BASIS, ASSIST COASTAL AREA MUNICIPALITIES IN CARRYING OUT THEIR RESPONSIBILITIES UNDER THIS ACT.

(b) THE COMMISSIONER SHALL PROVIDE EACH COASTAL AREA MUNICIPALITY WITH RESOURCE FACTOR MAPS AND OTHER INFORMATION CONCERNING THE LOCATION AND CONDITION OF ITS COASTAL RESOURCES AND SHALL ALSO PROVIDE GENERAL TECHNICAL BACKGROUND INFORMATION ON THE BENEFICIAL AND ADVERSE IMPACTS OF VARIOUS TYPES OF DEVELOPMENT ON COASTAL RESOURCES.

(c) THE COMMISSIONER SHALL ANSWER ANY QUESTIONS REGARDING THE REQUIREMENTS OF THIS ACT, SHALL RESPOND TO REASONABLE REQUESTS BY COASTAL AREA MUNICIPALITIES FOR BACKGROUND TECHNICAL INFORMATION, AND SHALL MEET REASONABLE REQUESTS BY SUCH MUNICIPALITIES FOR TECHNICAL STAFF ASSISTANCE IN DEVELOPING AND IMPLEMENTING MUNICIPAL COASTAL PROGRAMS AND COASTAL SITE PLAN REVIEWS.

(d) THE COMMISSIONER SHALL CONSULT REGULARLY WITH MUNICIPAL OFFICIALS FROM THE COASTAL AREA REGARDING IMPLEMENTATION OF THIS ACT AND SHALL PERIODICALLY HOLD WORKSHOPS WITH MUNICIPAL OFFICIALS RESPONSIBLE FOR MAKING DECISIONS UNDER THIS ACT.

(e) THE COMMISSIONER SHALL PREPARE A MODEL MUNICIPAL COASTAL PROGRAM, INCLUDING MODEL MUNICIPAL COASTAL PLANS AND REGULATIONS.

(f) WRITTEN TECHNICAL INFORMATION PROVIDED BY THE COMMISSIONER TO COASTAL AREA MUNICIPALITIES SHALL BE IN CLEAR AND READILY UNDERSTANDABLE LANGUAGE.

Sec. 6. (NEW)

(a) The commissioner shall insure that any funds received for the purpose of carrying out this act are equitably allocated among coastal-related state programs, including the coastal area management unit, coastal area municipalities and coastal research projects in order to effectively carry out the purposes of this act.

(b) The commissioner shall provide continuing financial assistance to coastal area municipalities to carry out their responsibilities under this act. Municipalities may apply annually for financial assistance in carrying out their responsibilities for municipal coastal site plan reviews under sections 11 through 16 of this act and for the purpose of preparing and implementing a municipal coastal program under sections 7 through 10 of this act when they have chosen to adopt a municipal coastal program. The commissioner may establish reasonable application requirements. In reviewing municipal applications for financial assistance the commissioner shall consider, but is not limited to considering: 1) the area, length of shorefront, population and development pressures within the municipality's coastal boundary, 2) the nature of the municipality's coastal resources and coastal related problems, 3) the demonstrated capacity and commitment of the municipality to carrying out the purposes of this act, 4) the demonstrated need for assistance, and 5) the availability of funds.

(c) No less than 30% of any funds received annually by the state under section 306 of the federal coastal zone management act shall be provided annually to coastal municipalities to assist in carrying out their responsibilities for municipal coastal site plan reviews under sections 11 through 16 of this act. Up to an additional 20% of any funds received annually by the state under section 306 of the federal coastal zone management act shall as a first priority be provided annually to assist coastal municipalities which have chosen to prepare and implement a municipal coastal program under sections 7 through 10 of this act, provided that if in any one year the total amount of all grants to municipalities which have chosen to adopt municipal coastal programs is less than 20% of such federal funds received in that year, the difference

may be allocated for the purposes of this act in accordance with subsection (a).

Section 7. (NEW)

(a) In order to carry out the policies and provisions of this act and to provide more specific guidance to coastal area property owners and developers, coastal municipalities may plan for and regulate activities, structures, uses and buildings occurring within the coastal boundary and landward of the mean high water mark and they may develop and adopt a municipal coastal program for this area.

(b) A municipal coastal program shall include, but is not limited to:

(1) Revisions to the municipal plan of development under section 8-23 of the general statutes or special act, insofar as it affects the area within the coastal boundary, such revisions to include an identification and written description of the municipality's major coastal-related issues and problems, both immediate and long-term, such as erosion, flooding, adequacy of recreational facilities, and utilization of port facilities and to include a description of the municipal boards, commissions and officials responsible for implementing and enforcing the coastal program, a description of enforcement procedures, and a description of continuing methods of involving the public in the implementation of the municipal coastal program;

(2) Revisions to the municipal zoning regulations under section 8-2 of the general statutes or under special act and revisions to the following regulations and ordinances where the municipality has adopted or is considering adopting them insofar as such regulations or ordinances affect the area within the coastal boundary:

(a) historic district ordinances under section 7-147b of the general statutes;

(b) waterway encroachment line ordinances under section 7-147 of the general statutes;

(c) planned unit development regulations under sections 8-13c and 8-13d of the general statutes;

(d) subdivision ordinances under section 8-25 of the general statutes;

(e) inland wetland regulations under sections 22a-42(e) and 22a-42a of the general statutes;

(f) sewerage ordinances under section 7-153 of

the general statutes;

(g) ordinances or regulations governing filling of land and removal of soil, loam, sand or gravel under section 7-148 of the general statutes; and

(h) ordinances concerning protection and improvement of the environment under section 7-148 of the general statutes;

(i) regulations for the supervision, management, control, operation or use of a sewerage system under section 7-247 of the general statutes.

(c) Where a municipality has not yet adopted a municipal plan of development under section 8-23 of the general statutes, a municipality may establish a municipal planning commission under section 8-19 of the general statutes and prepare a municipal plan of development solely for that portion of municipality within the coastal boundary in accordance with subsection (b) and section 8 of this act.

(d) A municipal coastal program may include revisions to the following municipal plans or programs which revisions shall be consistent with the municipal plan of development revised in accordance with subsection (b) and section 8 of this act:

(1) the community development plan under sections 8-169c and 169d of the general statutes;

(2) the harbor improvement plan under section 13b-56 of the general statutes;

(3) the redevelopment plan under sections 8-125 and 8-127 of the general statutes;

(4) the port development plan under section 7-329c of the general statutes;

(5) the capital improvement plan under section 8-160 of the general statutes;

(6) the open space plan under section 12-107e of the general statutes;

(7) any development project plan or plans under section 8-189 of the general statutes; and

(8) the municipal water pollution control plan under section 7-245 of the general statutes.

(e) Revisions to the municipal plan of development in accordance with subsection (b) and section 8 of this act may include a description of any development projects, acquisition plans, open space tax abatement programs, flood and erosion control projects and other non-regulatory measures which the municipality intends to undertake in order to promote wise management of coastal resources.

Section 8. (NEW)

(a) In revising the municipal plan of development in accordance with section 7(b) of this act the municipal planning commission shall follow:

(1) the policies and goals in section 22a-92 of the general statutes, as amended by section 2 of this act;

(2) the policies and goals issued by the commissioner in accordance with section 18 of this act; and

(3) the criteria listed in section 8-23 of the general statutes.

(b) In revising its municipal plan of development the municipal planning commission shall also consider:

(1) the character and distribution of the coastal resources defined in section 3 of this act within its coastal boundary, the capacity of and limitations on such resources to support development, and the types and methods of development compatible with the wise use, protection and enhancement of such resources;

(2) the nature and pattern of existing development;

(3) the need for public services; and

(4) the advisory guidelines prepared by the commissioner under section 19 of this act.

(c) The municipal planning commission may revise its municipal plan of development by making such changes as: modifications of land use categories, changes in the density and intensity of land use, alteration in plan policies; modifications in growth strategies, changes in acquisition priorities, and alterations in public infrastructure, highway and other capital improvement projects.

(d) The municipal planning commission shall submit its proposed revisions to the municipal plan of development prepared in accordance with section 7(b) and subsections (a) and (b) to the commissioner for his review and comment prior to the final adoption of such revisions in accordance with section 8-23 of the general statutes. Upon receipt of such proposed revisions the commissioner shall review them for consistency with requirements and criteria listed in section 7(b)(1) and subsections (a) and (b) and shall within 90 days notify the municipality in writing of any suggested modifications to the proposed revisions he might have. Upon receipt of the commissioner's comments or 90 days after his receipt of proposed

revisions the municipal planning commission may modify and adopt the proposed revisions in accordance with section 8-23 of the general statutes.

Sec. 9. (NEW)

(a) In revising zoning regulations and other municipal coastal regulations and ordinances listed in section 7(b)(2) of this act, the municipal agency with jurisdiction over such regulations shall consider the criteria in section 8-2 of the general statutes and the other sections of the general statutes or special act authorizing such regulations, and shall insure that such regulations conform to and effectuate the policies and land and water use strategies of the municipal coastal plans revised under sections 7 and 8 of this act and the criteria listed in sections 8(a) and (b) of this act.

(b) The municipal agency with jurisdiction over the zoning regulations and other municipal coastal regulations and ordinances listed in section 7(b)(2) of this act shall submit its proposed revisions of such regulations and ordinances to the commissioner for his review and comment prior to final adoption of such revisions in accordance with the appropriate statutory requirements regarding amendment of such regulations or ordinances. Upon receipt of the proposed revisions to the municipal coastal regulations, the commissioner shall review them for their consistency with the municipality's previously adopted municipal plan of development and the criteria listed in sections 8(a) and (b) of this act, and shall within 90 days notify the municipality in writing of any suggested modifications he might have. Upon receipt of the commissioner's comments or 90 days after his receipt of proposed revisions the municipal agency with jurisdiction over such regulations may modify and adopt the proposed revisions in accordance with the appropriate statutory requirements regarding amendment of such regulations and ordinances.

(c) In revising zoning regulations under chapter 124a of the general statutes for the area within the coastal boundary the municipal zoning commission may utilize any lawful zoning techniques, including but not limited to, modifications of use categories, alteration of density and intensity of use, special use zones, overlay zones, special permit regulations, sign controls, design controls, landscaping and gardening

regulations, hazard or geologic review requirements, conservation, cluster, open space and lot coverage requirements, minimum lot sizes, set back requirements, and bonus and incentive zoning regulations.

(d) In revising subdivision regulations under chapter 126 of the general statutes the municipal planning commission may utilize any lawful technique including, but not limited to, conservation, cluster, open space, park and recreation regulations.

Sec. 10. (NEW)

(a) A municipal coastal program shall be implemented by those municipal bodies exercising legal authority for the regulatory decisions listed in section 11(b) of this act.

(b) Amendments to or revisions of either the municipal plan of development affecting the area within the coastal boundary or municipal coastal regulations shall be made in accordance with sections 7 and 8 or section 9 of this act as appropriate.

(c) When amendments are made to the municipal plan of development affecting the area within the coastal boundary, the municipality shall also make such revisions to the zoning regulations and other municipal coastal regulations listed in section 7(b)(2) of this act in accordance with the appropriate statutory requirements regarding amendment of such regulations and ordinances as are necessary to insure that such regulations conform to and effectuate the policies and land and water use strategies of the amended plans.

(d) When amendments are made to zoning regulations and other municipal coastal regulations listed in section 7(b)(2) without prior amendments to corresponding provisions of municipal coastal plans, the municipality shall insure that the amendments to the coastal regulations continue to conform to and effectuate the policies and land and water use strategies of the municipal coastal plans and the criteria listed in sections 8(a) and (b) of this act.

Sec. 11. (NEW)

(a) Coastal municipalities shall undertake coastal site plan reviews in accordance with the requirements of this act.

(b) The following site plans, plans and applications for activities or projects to be located fully

or partially within the coastal boundary and landward of the mean high water mark shall be defined as "coastal site plans" and shall be subject to the requirements of this act: site plans submitted to a zoning commission in accordance with section 16 of this act, site plans submitted to a planning commission in accordance with section 8-25, plans submitted to a planning commission under section 8-13f; applications for a special exception or special permit submitted to a planning commission, zoning commission or zoning board of appeals in accordance with section 8-2, an application for variance submitted to a zoning board of appeals under section 8-6(3), and a referral of a proposed municipal project to a planning commission in accordance with section 8-24.

(c) In addition to the requirements specified by municipal regulation, a coastal site plan shall include a plan showing the location and spatial relationship of coastal resources on and contiguous to the site; a description of the project with appropriate plans, indicating project location, design, timing, and methods of construction; an assessment of the capability of the resources to accommodate the proposed use; an assessment of the suitability of the project for the proposed site; an evaluation of the potential beneficial and adverse effects of the project; and a description of proposed methods to mitigate adverse effects on coastal resources.

(d) The board or commission reviewing the coastal site plan shall, in addition to the discretion granted in any other sections of the general statutes or in any special act, approve, modify, condition or deny the activity proposed in a coastal site plan on the basis of the criteria listed in section 12 of this act to ensure that the potential adverse impacts of the proposed activity on both coastal resources and future water-dependent development activities are acceptable.

Sec. 12. (NEW)

(a) In addition to determining that the activity proposed in a coastal site plan satisfies other lawful criteria and conditions, a municipal board or commission reviewing a coastal site plan shall determine whether or not the potential adverse impacts of the proposed activity on both coastal resources and future water-dependent development activities are acceptable.

(b) In determining the acceptability of potential adverse impacts of the proposed activity described in the coastal site plan on both coastal resources and future water-dependent development opportunities a municipal board or commission shall:

(1) consider the characteristics of the site, including the location and condition of any of the coastal resources defined in section 3 of this act;

(2) consider the potential effects, both beneficial and adverse, of the proposed activity on coastal resources and future water-dependent development opportunities;

(3) follow the goals and policies in section 22a-92 of the general statutes, as amended by section 2 of this act and the goals and policies issued in accordance with section 18 of this act and identify conflicts between the proposed activity and any goal or policy;

(4) consider the advisory guidelines prepared by the commissioner in accordance with section 19 of this act.

(c) A municipal board or commission denying a coastal site plan on the basis of the criteria listed in subsection (b) shall state in writing the findings and reasons for its action.

(d) In approving any activity proposed in a coastal site plan, the municipal board or commission shall find in writing that the proposed activity with any conditions or modifications imposed by the board:

(1) Is consistent with any goals and policies in section 22a-92 of the general statutes, as amended by section 2 of this act and the policies and goals issued in accordance with section 18 of this act;

(2) Incorporates as conditions or modifications all reasonable measures which would mitigate the adverse impacts of the proposed activity on both coastal resources and future water-dependent development activities.

Sec. 13. (NEW)

This act shall not alter the limitations on the time allowed for reaching a final decision, or other procedural requirements governing the review of coastal site plans listed in section 11(b) of this act under the general statutes or special act, except as provided in section 16 of this act. Notwithstanding any other

section of the general statutes or any special act or municipal regulation, failure of a board or commission to issue a final decision on a coastal site plan within the time limits provided by any section of the general statutes, a special act or a municipal regulation shall not be deemed to be an approval of a coastal site plan. The person submitting a coastal site plan shall retain the right to pursue other legal remedies to compel decision and to seek damages for unjustifiable and substantial non-compliance by a board or commission with the statutory time limits for reaching a final decision on a coastal site plan application.

Sec. 14. (NEW)

As a condition to a coastal site plan approval a board or commission may require a bond, escrow account or other surety or financial security arrangement to secure compliance with any modifications, conditions and other terms stated in its approval of a coastal site plan.

Sec. 15. (NEW)

Any activity within the coastal boundary subject to the coastal site plan review requirements, as defined in sections 11 and 12 of this act, which occurs without having received a lawful approval from a municipal board or commission under the procedures and criteria listed in sections 11 and 12 of this act, or which violates the terms or conditions of such approval, shall be deemed a public nuisance. Municipalities shall have the authority to exercise all enforcement remedies legally available to them including, but not limited to, those under section 8-12 of the general statutes for violations of coastal site plan review requirements. The commissioner may order that such a public nuisance be halted, abated, removed or modified and that the site of the violation be restored as nearly as reasonably possible to its condition prior to the violation, under the authority of sections 22a-6 and 22a-7 of the general statutes. Upon receipt of a petition signed by at least twenty-five persons the commissioner shall investigate to determine whether or not an activity described in the petition constitutes a public nuisance.

Sec. 16. (NEW)

(a) A site plan shall be filed with the municipal zoning commission to aid in determining the conformity of a proposed building, use or structure, fully or partially within the coastal boundary, with the specific provisions of the zoning regulations of the municipality and the provisions of sections 11 and 12 of this act. A site plan required under this section may be modified or denied if it fails to comply with the requirements already set forth in the zoning regulations of the municipality and, in addition, the site plan may be modified, conditioned or denied in accordance with the procedures and criteria listed in sections 11 and 12 of this act. Review of a site plan under the requirements of this section shall supersede any review required by the municipality under section 8-3(g) of the general statutes and shall be in addition to any applicable zoning regulations of any special district exercising zoning authority under special act.

(b) The zoning commission may by regulation exempt any or all of the following uses from the site plan review requirements of this section:

(1) minor additions to or modifications of existing buildings or detached accessory buildings, such as garages and utility sheds;

(2) construction of new or modification of existing structures incidental to the enjoyment and maintenance of residential property including but not limited to walks, terraces, driveways, swimming pools, tennis courts, docks and detached accessory buildings;

(3) construction of new or modification of existing on premise fences, walls, pedestrian walks and terraces, underground utility connections (essential electric, gas, telephone, water and sewer service lines), signs and such other minor structures as will not substantially alter the natural character of coastal resources or restrict access along the public beach;

(4) construction of an individual conforming single family residential structure in the following coastal resource areas: shorelands, urban shorefront, and rocky shorefront as defined in section 3 of this act;

(5) gardening, landscaping, grazing, farming, and harvesting of crops; and

(6) activities conducted for the specific purpose of conserving or preserving soil, vegetation, water,

fish, shellfish, wildlife and other coastal land and water resources.

(c) The zoning commission may, at its discretion, hold a hearing on a site plan required by this section.

(d) The zoning commission shall set forth the reasons for any decision to deny, modify or condition a site plan submitted under this section. A copy of any decision shall be sent by certified mail to the person who submitted such plan within fifteen days after such decision is rendered.

(e) The site plan review required under this section shall be subject to the same statutory requirements as section 8-7d(b) of the general statutes for the purposes of determining the time limitations on the zoning commission in reaching a final decision.

(f) In addition to the requirements of section 8-3(f) of the general statutes, no building permit shall be issued for a building, use or structure subject to the zoning regulations of a municipality and located fully or partially within the coastal boundary without certification in writing by the official charged with enforcement of such regulations that such building, use or structure has been reviewed and approved in accordance with the requirements of this act or is a use exempt from such review under regulations adopted by the zoning commission in accordance with this section.

(g) A municipality by vote of its legislative body may delegate its responsibility for site plan review under this section to a special district exercising zoning authority under special act for the area within both the coastal boundary and limits of the special district, subject to acceptance by the special district of such responsibility following the procedures listed in section 7-327 of the general statutes. The municipality may revoke the delegation of such responsibilities and the special district may also revoke acceptance of such responsibility under this subsection at any time.

(h) A municipal zoning commission reviewing, in accordance with this section, a site plan for a building use or structure occurring within the limits of a special district exercising zoning authority under special act shall provide a copy of the site plan to the chief elected official of such district and shall provide an adequate opportunity for comment by such official prior to making a final decision on the site plan. A special district delegated the responsibility

for coastal site plan reviews in accordance with subsection (g) shall provide a copy of any site plan submitted for its review to the municipal zoning commission of the town in which the project is to occur and shall provide an adequate opportunity for comment by the zoning commission prior to making a final decision on the site plan.

Sec. 17. (NEW)

(a) The minimum standards established by the Connecticut River Gateway Committee under Section 25-102d of the general statutes and revisions to such standards adopted by the Connecticut River Gateway Commission under Section 25-102g(c) of the general statutes prior to the effective date of this act shall be deemed to be consistent with the goals, policies and purposes of this act.

(b) After the effective date of this act the Connecticut River Gateway Commission shall make no revision to the minimum standards under Section 25-102g(c) of the general statutes which are inconsistent with the goals and policies in 22a-92 of the general statutes, as amended by section 2 of this act and the goals and policies issued in accordance with section 18 of this act when such revision concerns the area within the coastal boundary.

(c) No provision of this act shall be deemed to interfere with the authority of the Connecticut River Gateway Commission to rule on changes to local zoning, subdivision or planning regulations under Section 25-102g(b) of the general statutes, provided that the Commission shall make no decision in ruling on such local regulations inconsistent with the goals and policies in Section 22a-92 of the general statutes, as amended by section 2 of this act and the goals and policies authorized in Section 18 of this act when such regulations concern any part of the area within the coastal boundary.

Sec. 18. (NEW)

The commissioner shall by regulation adopt goals and policies consistent with the goals and policies in section 22a-92 of the general statutes, as amended by section 2 of this act and based on the recommended goals and policies of the Coastal Area Management Board (published as planning report No. 26 by the Connecticut

Coastal Area Management Program, August 2, 1978) which shall serve as guidelines for making coordinated decisions by state, local and federal governments.

Sec. 19. (NEW)

The commissioner shall prepare advisory guidelines to assist municipalities in preparing municipal coastal programs and in reviewing coastal site plans and to assist state agencies responsible for proposed actions occurring within the coastal boundary and significantly affecting the environment. The advisory guidelines may contain, but are not limited to: (1) suggested planning methodologies useful in revising municipal coastal plans, (2) suggested regulatory methods useful in revising municipal coastal regulations to conform to and effectuate the purposes of municipal coastal plans, and (3) suggested criteria and procedures for undertaking municipal coastal site plan reviews. Advisory guidelines shall be published in a form which makes them widely available. Advisory guidelines shall not be mandatory nor shall they supersede the legally enforceable policies in section 22a-92 of the general statutes, as amended by section 2 of this act, the goals and policies issued under section 18 of this act or the legally enforceable policies or requirements of any other section of the general statutes, special act, or municipal regulation or ordinance. Such advisory guidelines shall be considered by municipal and state officials when making decisions about coastal plans, regulatory decisions or development projects.

Sec. 20. (NEW)

(a) The commissioner shall establish a coastal area management unit within his office to provide technical, coordinating and research services to promote the effective administration of this act at the federal, state and local levels.

(b) The commissioner shall have the overall responsibility for general supervision of the implementation of this act and shall monitor and evaluate the activities of federal and state agencies and the activities of municipalities to assure continuing, effective, coordinated and consistent administration of the requirements and purposes of this act.

(c) The commissioner shall prepare and submit to the general assembly and the governor, on or before

December 1st of each year, a written report summarizing the activities of the agency with regard to the development and implementation of the provisions of the coastal management act covering the previous 12 month period. The report shall be a public document and shall address the following subjects:

(1) the department's accomplishments and actions in achieving the goals and policies of the coastal management act including but not limited to coordination with other state, regional, federal and municipal programs established to achieve the purposes of this act, and research programs established pursuant to section 6(a) of this act;

(2) any recommended changes in existing statutes or regulations that the commissioner feels necessary to better achieve the stated purposes of the coastal management act;

(3) a summary of the municipal and federal programs and actions affecting the coast;

(4) any new programs or plans to be considered for action by the general assembly and the governor to better achieve the stated purposes of the coastal management act;

(5) any aspect of the program or the coastal management act which is proving difficult to accomplish, the reasons for such difficulties, and proposals for courses of action to alleviate such difficulties;

(6) a summary of the expenditure of federal and state funds in furtherance of the purposes of this act; and

(7) a request for appropriation of such state funds as necessary to match federal funds and to provide continuing financial support of the program. The report shall also comply with section 4-16k of the general statutes with respect to agency actions pursuant to the coastal management act.

Sec. 21. (NEW)

A coastal area municipality may appear by right as a party to any hearing or decision before the commissioner involving any permit or license to be issued by the commissioner for an activity occurring within the coastal boundary of the municipality or immediately adjacent to the municipality and may by right appeal any decision of the commissioner regarding such matters.

Sec. 22. (NEW)

The commissioner or his designee may appear by right as a party to any hearing or decision before any municipal board or commission involving the review of a coastal site plan, as defined in section 11(b) of this act, involving a municipal approval, permit or license for a building, use or structure affecting the area within the coastal boundary and the commissioner may appeal, or appear as a party to any appeal of, a municipal decision over such matters whether or not he has appeared as a party before the municipal board or commission.

Sec. 23. (NEW)

(a) All major state plans affecting the coastal area shall be consistent with the goals and policies in section 22a-92, as amended by section 2 of this act, and the goals and policies issued under section 18 of this act. Existing state plans affecting the coastal area shall, within 18 months of the effective date of this act, be revised as necessary to insure consistency with this act. Agencies responsible for revising state plans shall consult with the commissioner to insure consistency with the goals and policies identified in this subsection.

(b) Each state department, institution or agency responsible for proposed actions occurring within the coastal boundary and significantly affecting the environment as defined in section 22a-1c of the general statutes shall insure that such actions are consistent with the goals and policies in section 22a-92, as amended by section 2 of this act, and the goals and policies issued under section 18 of this act and shall consider, in planning for and undertaking such proposed actions, the advisory guidelines prepared by the commissioner in accordance with section 19 of this act. The secretary of the office of policy and management shall, in addition to other criteria, consider the consistency of such proposed actions with such goals and policies in determining whether or not an agency's evaluation under 22a-1b of the general statutes satisfies the requirements of sections 22a-1a through 22a-1h of the general statutes, and regulations thereunder. The commissioner of environmental protection shall amend the regulations required in section 22a-1g of the general statutes to incorporate and implement the goals and policies under section

as amended by section 2 of this act and the goals and policies issued under section 18 of this act and the other requirements of this section.

Sec. 24. (NEW)

The commissioner shall coordinate the activities of all regulatory programs under his jurisdiction with permitting authority in the coastal area to assure their administration is consistent with the goals and policies in section 22a-92 of the general statutes, as amended by section 2 of this act and the goals and policies issued under section 18 of this act. Such regulatory programs include but are not limited to sections 25-7b to 25-7f of the general statutes, structures in navigable waters; sections 25-10 to 25-18 of the general statutes, removal of sand and gravel; sections 22a-28 to 22a-35 of the general statutes, tidal wetlands; sections 22a-36 to 22a-45 of the general statutes, inland wetlands and water courses; sections 25-4a to 25-4g of the general statutes, stream encroachment lines; and federal water quality certification, delegated to the state under the federal Clean Water Act of 1972, section 401 (33 U.S.C. 1411). The commissioner shall follow such goals and policies in addition to other legally required standards and criteria, in making permit decisions under such programs. Procedural coordination of such programs may include but is not limited to the creation of common or combined application forms, the holding of joint hearings or permit applications; and the coordination of the timing or sequencing of permit decisions.

Sec. 25. (NEW)

There is appropriated the sum of \$250,000 for the purpose of providing matching funds on an eighty (80) percent federal, twenty (20) percent state basis to implement a shared state-municipal coastal management program under the authority of the coastal management act. All funds, state and federal, are to be disbursed in accordance with section 6 of this act.

Sec. 26. (NEW)

This act shall take effect on January 1, 1980.

APPENDIX D
ADVISORY GUIDELINES:
COASTAL SITE PLAN REVIEW

Suggested (Advisory) Guidelines for Coastal Site Plan Review

I. Regulatory Analysis: determination of compatibility and suitability of the project and the proposed site. (Objective of the Procedure)

Regulatory decisions based on consideration of resource components and parameters as outlined in Section III.

- Approval given to those uses determined as suitable and compatible.
- Conditional approval given to those uses determined as moderately suitable and compatible (conditions imposed to minimize deleterious effects).
- Denial of those uses determined as unsuitable and incompatible.

Definitions:

Compatibility - consistency with site and surrounding natural, social and cultural features.

Suitability - ability of natural resource to support activity without significant negative impact.

II. Project Analysis: considerations necessary in the determination of compatibility/suitability.

A. Determine Primary (and Secondary) Environmental Impacts

1. Define major components of the proposed activity.
 - physical components (structures, dredged areas, fill)
 - construction activities and techniques
 - access routes and rights of way
2. Determine resource components affected.
 - resource type (Section III A)
 - environmental parameters (Section III B)
3. Assess primary impact (positive and negative).
 - immediate onsite effects (effects occurring at the site within project boundaries)
 - immediate nearsite effects (effects occurring adjacent to the project site)
 - immediate offsite effects (effects occurring at points removed from the site)
4. Assess secondary impacts (positive and negative) where practicable.
 - induced onsite
 - induced nearsite
 - induced offsite

B. Determine Resource Commitment

1. Define major components of the proposed activity.
 - physical components (structures, dredged areas, fill)
 - construction activities and techniques
 - access routes and rights of way
2. Determine resource components affected.
 - resource type (Section III A)
 - environmental parameters (Section III B)
3. Assess nature of commitment.
 - magnitude
 - dimension
 - necessity
4. Assess permanence of the commitment.
 - irretrievable or irreversible (refers to those uses which commit or effectively commit a resource permanently)
 - time element: short term vs. long term

C. Determine Public Benefits/Liabilities

1. Define major components of the proposed activity.
2. Determine resource components affected.
 - resource type (Section III A)
 - environmental parameters (Section III B)
3. Assess public benefits of project.
 - public health and welfare
 - navigation
 - shoreline access
 - water dependency
 - recreation
 - hazard alleviation (flooding, erosion)
 - overall environmental quality
4. Assess public liabilities of project.
 - public health and welfare
 - navigation
 - shoreline access
 - water dependency
 - recreation
 - hazard generation (flooding, erosion)
 - overall environmental quality

D. Assess Need and Opportunities for Alternatives/Mitigation

1. Define components of the proposed activity which have undesirable or unacceptable environmental impacts or public liabilities.
2. Identify measures which will mitigate adverse environmental impacts and public liabilities.
3. Assess alternative plans of development which will reduce environmental impacts and public liabilities.
4. Require implementation of mitigatory measures where appropriate.
5. Require revision of development plan which will reduce environmental impacts and public liabilities.

III. ENVIRONMENTAL ANALYSIS: Advisory Resource Evaluation Guidelines

The following definitions apply to the recommended priority use guidelines identified for each resource type discussed below:

Preservation - resource management which fosters those uses which will not adversely affect the resource or which enhance its value (natural and social).

Conservation/limited development - resource management which fosters those activities or limited development that have minimal adverse effects on the resource or which are justified on the basis of the benefits derived from the activity or development.

Development - resource management which encourages development in accordance with sound environmental, engineering and socio-economic practices.

A. RESOURCE TYPE

1. URBAN SHOREFRONT

Definition: Urban shorefront includes those shoreline areas which have been so highly engineered and managed for commercial, industrial or institutional purposes that their natural physiographic features or systems have been largely obscured and functionally impaired.

Importance:

Natural

- limited

Social

- area of significant economic development and importance
- transportation center
- commercial center
- recreational boating center
- area of significant cultural and historic value

Priority use: Development

Advisory guidelines

- limit development to water dependent uses
- encourage re-use and redevelopment over new development
- encourage development consistent with established municipal harbor development plans
- apply guidelines for the following environmental parameters:

major biological components
water quality
circulation
erosion/sedimentation
upland drainage
coastal flooding
air quality
visual quality

2. SHORELANDS

Definition: Those land areas within the primary zone, exclusive of flood and erosion hazard areas, which are not subject to dynamic coastal processes. This category is comprised of typical upland features such as bedrock hills, till hills and drumlins.

Importance:

Natural

- immediate source of upland runoff contributing to coastal drainage
- immediate source of upland sediments

Social

- vistas

Priority use: Development

Advisory guidelines:

- utilize all means, such as stabilization, revegetation and terracing, to reduce erosion from agriculture, logging, and construction
- grade altered land surfaces to divert and to detain water so as to provide for maximum water detention.

- limit impervious surfaces to the minimum by utilizing permeable surfaces where possible.
- a buffer strip of natural vegetation of appropriate width should be maintained along the edges of all watercourses, water bodies and wetlands.
- canals should not be excavated to connect watershed land directly to coastal water basins.
- design stormwater systems to prevent increased estuarine flooding by providing either sufficient detention or direct discharge to the ocean
- require installation of artificial stormwater detention facilities with capacity equivalent to the natural detention capacity eliminated.
- apply guidelines for the following environmental parameters:

major biological components
water quality
air quality
erosion/sedimentation
upland drainage
visual quality

3. NEARSHORE WATERS

Definition: Those waters and their substrates lying between mean lower low water and a depth approximated by the 10 meter contour.

Importance:

Natural

- area of high primary and secondary productivity
- area of concentrated shellfish, finfish, and crustacean habitat
- support many diverse floral and faunal species
- spawning and breeding area for many species of shellfish and finfish
- possess deposits of extractable sand and gravel

Social

- critical to the assimilation of industrial, commercial and residential wastes
- support commercial and recreational fisheries
- important to marine transportation and navigation
- recreational opportunities: boating, swimming, fishing, diving and vistas

Priority use: Conservation/limited development

Advisory guidelines

- avoid dredging and filling activities in shellfish beds
- avoid conducting dredging activities during shellfish and finfish spawning and breeding seasons
- prohibit filling for the purposes of creating developable uplands from existing water areas.

- utilize and maintain existing navigation channels to maximum extent feasible
- avoid removal of sand from estuaries or submerged beach systems for beach fill or construction
- encourage use of suitable sediments removed from navigation channels for beach fill
- maintain natural submerged offshore features, such as bars, which dissipate storm energy and act as sediment reservoirs for beaches
- apply guidelines for the following environmental parameters:
 - major biological components
 - water quality
 - circulation
 - erosion/sedimentation

4. OFFSHORE WATERS

Definition: Those waters and their substrates lying seaward of a depth approximated by 10 meter contour.

Importance:

Natural

- area of high natural primary and secondary productivity
- habitat for a variety of marine organisms (finfish benthic organisms)
- important contributor to the productivity of contiguous ocean and nearshore waters

Social

- critical to the assimilation of industrial, commercial and residential wastes (flushing)
- supports commercial and recreational fisheries
- important to marine transportation and navigation
- provides recreational opportunities: boating, swimming, fishing, diving, vistas

Priority use: Conservation/limited development

Advisory guidelines:

- insure that dredged material disposal is consistent with state interim disposal policy
- apply guidelines for the following environmental parameters
 - major biological components
 - water quality
 - circulation
 - erosion/sedimentation

5. ISLANDS

Definition: A portion of land composed of glacial drift and/or bedrock and surrounded on all sides by water.

Importance:

Natural

- isolated nesting area and critical habitat for shore birds
- valuable habitat, support many floral and faunal species which have all but disappeared from the mainland
- constitute a large percent (90 miles) of undeveloped shoreline
- morrainal islands constitute unique geologic features

Social

- unique recreational opportunity: fishing, swimming, boating, and wildlife observation
- open space
- area of scientific and educational value
- provide a storm buffer for adjacent mainland areas

Priority use: Conservation/limited development

Advisory guidelines:

- prohibit extension of fixed access routes and infrastructural facilities to undeveloped offshore islands
- apply guidelines for the following environmental parameters:

- major biological components
- water quality
- erosion/sedimentation
- upland drainage
- coastal flooding
- air quality
- visual quality

6. COASTAL HAZARD AREAS

Definition: Those land areas which would be inundated during normal or extreme coastal storm events or which would be subject to erosion induced by such events (all flood and erosion hazard areas identified by HUD-FIA mapping under the emergency and regular program phases).

Importance:

- hazard area for structural development
- flood and erosion buffer zone
- encompass most other important coastal resources

Priority use: Conservation/limited development

Advisory guidelines

- preserve natural flood and erosion buffering landforms such as beaches, dunes and wetlands
- maintain a maximum of natural vegetation in high hazard areas (V-zones)
- locate all industrial and other major potential sources of pollution above flood lands
- discourage development of non-water dependent uses in hazard areas
- encourage non-structural recreational and conservation activities in hazard areas
- apply HUD-FIA regulations
- apply guidelines for the following environmental parameters:

coastal flooding
erosion sedimentation
circulation
upland drainage
water quality
air quality
visual quality
major biological components

7. ESTUARINE EMBAYMENTS

Definition: A protected coastal body of water with an open connection to the sea in which saline sea water is measurably diluted by freshwater including tidal rivers, bays, lagoons, coves and neutral embayments. Embayments represent a unique and fragile interface between fresh and saltwater and are comprised of a number of distinct coastal landforms which occur elsewhere along the coast. A feature which is unique to embayments is eelgrass flats which require such wave sheltered climates for their development.

Importance:

Natural

- areas of high biological productivity
- significant habitat for shellfish, finfish and waterfowl
- spawning and feeding grounds for commercially important finfish
- essential biological corridor for spawning anadromous and catadramous fish
- exhibit unique circulation patterns (estuarine circulation) which influence nutrient distribution, control salinity, mix the water column and work and redistribute sediments
- supply sheltered areas for the development of eelgrass flats which are highly productive; provide nursery grounds shelter and refugia for various aquatic species; are a vital food source for marine organisms, support an important biomass of epiphytic plants; and transfer nutrients from sediments into the water column.

Social

- provide protected locations for activities such as boating, swimming, fishing and other passive recreational activities
- provide protected point of deep water access and navigational corridors for commercial and industrial water front uses
- area of unique scientific and educational value
- eelgrass flats (a component of some embayments) reduce current velocities and control erosion by trapping and binding sediments

Priority use: Conservation/limited development

Advisory guidelines:

- avoid inlet modifications that adversely affect estuarine circulation, storm surge inflow and stormwater outflow
- maintain natural drainage and circulation patterns
- avoid placement of structures which would impede or alter natural drainage and circulation patterns
- prohibit filling for the purposes of gaining developable uplands from existing water areas except in urban shorefront areas
- limit placement of outfalls and discharges to those portions of the estuary which can naturally assimilate them through normal tidal exchange and circulation patterns
- protect and enhance eelgrass flats
- confine dredging activities to those periods which would not conflict with shellfish spawning seasons or anadromous fish runs
- avoid locating industrial facilities with high ecosystem disturbance potential (oil transfer terminals, power plants with once-through cooling, chemical plants with irremedial toxic discharges) on estuarine water basins.
- encourage priority maintenance of public navigation channels
- apply guidelines for the following environmental parameters:

major biological components
water quality
erosion sedimentation
upland drainage
coastal flooding
air quality
visual quality
circulation

8. ROCKY SHOREFRONT

Definition: Shorefront composed of bedrock, boulders and cobbles. Rocky shorefronts are highly erosion resistant and are an insignificant source of sediments for other coastal landforms. They range from sea cliffs to gently sloping rock lands.

Importance:

Natural

- erosion resistant
- provides hard substrate and habitat for rocky intertidal organisms
- feeding grounds and refuge areas for some shore birds and finfish

Social

- recreational opportunities: climbing, wildlife observation and vistas
- dissipate and absorb storm and wave energy without significant changes in shoreline configuration

Priority use: Conservation/limited development

Advisory guidelines:

- apply guidelines for the following environmental parameters:
 - major biological components
 - water quality
 - erosion/sedimentation
 - coastal flooding
 - visual quality

9. COASTAL BLUFFS AND ESCARPMENTS

Definition: Naturally eroding shorelands marked by dynamic escarpments or sea cliffs whose slope angles constitute an intricate adjustment between erosion, substrate composition, drainage and degree of plant cover.

Importance:

Natural

- significant sediment source for other features such as beaches
- valuable wildlife habitat
- supports unique plant communities and species

Social

- coastal flood protection, wave energy dissipation
- moderately important recreational resource for hiking and vistas

Priority use: Conservation/limited development

Advisory guidelines:

- promote bluff slope stability through maintenance and enhancement of plant cover

- minimize destruction of vegetation through use of traffic control techniques such as elevated boardwalks and designated access points
- prohibit shoreline excavation or modification which would induce accelerated erosion
- establish erosion setbacks based on best available data
- apply guidelines for the following environmental parameters:

major biological components
water quality
erosion/sedimentation
upland drainage
coastal flooding
air quality
visual quality

10. INTERTIDAL FLATS

Definition: Very gently sloping or flat areas located between high and low tides composed of muddy, silty and fine sandy sediments and generally devoid of vegetation.

Importance:

Natural

- rich nutrient source and reservoir
- valuable feeding areas for invertebrates, fish and shore birds
- significant shellfish habitat
- sink for toxic materials (thereby contributing to water quality).

Social

- recreation; shellfishing, fishing, wildlife observation
- buffers storm energy
- area of scientific and educational value

Priority use: Preservation/limited development in port areas

Advisory guidelines:

- prohibit filling for the purposes of creating developable uplands from existing intertidal flats
- limited development to minimally disruptive activities
- limit necessary development to open pile and timber structures
- install pipes and cables below grade
- minimize effects of boat wakes through establishment of no wake zones
- apply guidelines for the following environmental parameters:

major biological components
water quality
circulation

erosion/sedimentation
coastal flooding
air quality
visual quality

11. TIDAL WETLANDS

Definition: Areas which border on or lie beneath tidal waters, such as banks, bogs, saltmarshes, swamps, meadows, flats or other lowlands subject to tidal action and whose surface is at or below an elevation of one foot above local extreme high water. Includes regulated and unregulated areas as defined by section 22a-29 of the Connecticut General Statutes.

Importance:

Natural

- high biological productivity
- source of detrital products forming base of food chain in Long Island Sound
- provide habitat, nesting, feeding and refuge areas for shore birds
- nursery ground for larval and juvenile forms of many of the organisms of Long Island Sound and of many estuarine dependent oceanic species
- significant habitat for shellfish

Social

- improve water quality by trapping sediments, reducing turbidity, restricting the passage of toxics and heavy metals, decreasing BOD and trapping nutrients
- buffer storm and wave energy
- vegetation stabilizes shoreline and buffers erosion
- provide recreational opportunities: fishing, wildlife observation, hunting
- area of scientific and educational value
- major source of coastal open space
- important to commercial and recreational shell and finfisheries

Priority use: Preservation

Advisory guidelines:

- maintain form and integrity of wetland by confining uses to activities consistent with this goal (e.g. open pile and timber structures, installation of pipes and cables below grade)
- preserve natural wetland drainage and circulation patterns
- maintain ambient salinity ranges

- avoid wetland excavation except for temporary works such as transmission lines, pipes and cables which cannot be located elsewhere
- prohibit filling of wetlands except for public facilities which cannot be located elsewhere
- avoid diking or levees in coastal wetlands
- prohibit vehicular traffic in wetlands
- control pedestrian traffic through the use of elevated walkways
- maintain vegetative buffer adjacent to tidal wetlands and drainageways
- apply guidelines for the following environmental parameters:

major biological components
 water quality
 circulation
 erosion/sedimentation
 coastal flooding
 air quality
 visual quality

12. BEACH SYSTEMS

Definition: Beach systems include barrier beach spits and tombolos, barrier beaches, pocket beaches and land contact beaches. Each is composed of two major landforms, beaches and aeolian sand. Beach forms are comprised of gently sloping deposits of loosely consolidated sedimentary material (sand and or gravel on cobbles) fronting on coastal waters and extending landward from mean low water to the location where a change in physical composition or physiographic form occurs.

Aeolian forms include dune ridges, dunes and sandflats landward of the beach. Salt spray and burial tolerant vegetation, notably beach grass (*Ammophila breviligulata*), acts to stabilize these deposits.

Importance:

Natural

- provide critical nesting habitat for some shore birds
- provide unique habitats for plant species and communities
- dunes and duneridges act as reservoirs for sand supply to beaches

Social

- act as a buffer to coastal flooding and erosion
- dissipate wave energy
- very important recreational resource for fishing, swimming, sunning, hiking and vistas
- area of scientific and educational value

Priority use: Preservation

Advisory guidelines:

- promote beach system stability through maintenance and enhancement of beach grass communities
- minimize destruction of vegetation through use of traffic control techniques such as elevated boardwalks and designated access points
- prohibit shore excavation or modification which would induce accelerated erosion
- prohibit removal of sand from beach
- limit dredging of sand from areas immediately offshore of the beach
- confine siting of recreational support facilities to contiguous uplands
- require setbacks landward of an active dune system which allow for predictable recession of the beach system (50-70 yrs)
- maintain physical form and integrity of dune
- protect beach front nesting and breeding habitats during identified breeding and nesting seasons by temporary restriction of access
- give public recreational use highest priority
- limit maintenance activities to non-structural dune management and sand fill
- replace and maintain existing beach stabilization structures (groins, jetties) as built if necessary to protect a water dependent use
- apply guidelines for the following environmental parameters:

major biological components
water quality
erosion/sedimentation
coastal flooding
air quality
visual quality

13. FRESHWATER WETLANDS AND WATERCOURSES

Definition: Watercourses including streams, rivers, brooks, creeks, inland wetlands, lakes and ponds.

Importance:

Natural

- stormwater storage and transfer
- areas of high biological productivity
- wildlife habitat for birds and small animals
- spawning areas for anadromous fish
- influence salinity and estuarine circulation through freshwater input
- contribute to productivity of the Sound

Social

- erosion buffer
- recreational opportunities: swimming, fishing, hunting, wildlife observation, boating
- transport toxics, heavy metals and pathogens to coastal waters
- flood control buffer

Priority use: Conservation/limited development

Advisory guidelines:

- avoid wetland and watercourse modifications which would increase the rapidity of runoff to flood prone areas
- preserve those wetlands having significant biological or hydrological characteristics
- maintain vegetative buffers adjacent to watercourses, wetlands and waterbodies
- apply guidelines for the following environmental parameters:

major biological components
water quality
circulation
erosion/sedimentation
upland drainage
air quality
visual quality

B. ENVIRONMENTAL PARAMETERS: Physical and Biological Processes

1. BIOLOGICAL COMPONENTS

Definition: The prominent biological entities or communities existing at a particular site or otherwise affected directly or indirectly by development at the site, including, but not limited to, the following:

Invertebrates

shellfish
molluscs
crustaceans

Vertebrates

finfish
- marine
- anadromous
birds
mammals
reptiles
amphibians

Vegetation

marine
wetland
upland

Considerations:

- biological productivity of community
- type of biological community
- biological components
- habitat requirements
- rare and/or endangered species (of state or national importance)
- extent of community
- statewide importance
- local importance
- commercial/recreational value
- presence of leased shellfish beds
- level of importance in food chain
- extent of proposed disruption
- nature and magnitude of proposed disruption

Advisory guidelines:

- protect rare and endangered species through preservation of their habitats and other areas critical to their habitats and other areas critical to their perpetuation such as feeding grounds and refugia
- preserve unique biological communities
- maintain healthy function and community interrelationship
- insure continued viability and productivity of shell and finfish resources
- maximize natural plant cover
- minimize occurrence of impervious surfaces

2. WATER QUALITY

Definition: The suitability of water for human uses (swimming, fishing, shellfishing, drinking) as well as its ability to support healthy biological activities and functions as measured by the following indicators:

- suspended solids (turbidity)
- nutrients
- toxics, heavy metals
- dissolved oxygen
- pH
- temperature
- pathogens
- salinity

Considerations:

- source of pollutants (point, non-point)

- type of discharge
- period of disturbance
- magnitude of change
- maximum adverse conditions which may be generated
- ambient water quality
- composition of discharge
- cumulative impact of multiple discharges

Advisory guidelines:

- locate dumps, sanitary landfills and septic tank facilities back from watercourses, and to the extent possible, out of floodplains to prevent leaching of pollutants into coastal waters
- locate treatment facilities out of wetlands and coastal hazard areas and provide highest levels of treatment needed to remove pollutants of recognized high potential for damage to coastal ecosystems; release effluent in highly flushed systems
- limit the extension of public sewerage facilities to existing development in hazard areas
- apply standards established pursuant to FCWA as amended
- apply EPA guidelines for:
 - pH
 - temperature
 - dissolved oxygen
 - toxics
 - pathogens
- maintain ambient salinity ranges
- minimize induced temperature variations and fluctuations with respect to ambient conditions

3. CIRCULATION

Definition: The pattern, rates and volumes of salt and freshwater movement and their interaction in coastal water bodies as influenced by:

- tidal exchange/flushing
- freshwater input
- water column characteristics (stratification)
- basin characteristics, channel shapes

Considerations:

- period of disturbance
- magnitude of change
- maximum adverse conditions
- affect on ambient conditions, tidal exchange, freshwater input, water column characteristics, current velocities, etc.

Advisory Guidelines:

- maintain natural patterns of water circulation and normal water column characteristics
- maintain conveyance capacities of water courses and tidal inlets
- utilize existing natural channels to the greatest possible extent; locate new channels to prevent loss of vital areas and to avoid erosion of shorelines
- limit depth and width of new channels to maintain the natural pattern of water circulation, to avoid major salinity alteration, to protect vital habitats
- avoid inlet modifications which adversely affect estuarine circulation, storm surge inflow and stormwater outflow

4. EROSION/SEDIMENTATION

Defintion: The removal of sediments from a particular location (erosion) and their transportation to and deposition (sedimentation) at another location as caused by natural forces whether normally occurring or man induced. Erosion may be caused by waves, wind or streams and may be a one time event, cyclically or continuously occurring.

Considerations:

- existing land use
- nature and location of existing structures
- effect of erosion on the upland and adjacent land and property
- type and effectiveness of stabilization system
- adverse impacts of stabilization on littoral sediment system
- adverse effect of stabilization on adjoining property
- adverse impacts of dredging on littoral sediment system
- adverse impacts of dredging on adjoining uplands
- rates of deposition and/or erosion
- nature of shoreline earth materials: slopes, stability, susceptibility to erosion or slope failure
- feasibility of relocating existing structures vs. cost of erosion control works

Advisory guidelines:

- limit development on moderately (15-25%) steep slopes to low intensity uses
- avoid development of steep slopes (25% and greater)
- maximize natural plant cover, particularly on moderately steep to steep slopes
- avoid alteration of natural drainage patterns which would induce or accelerate erosion
- utilize applicable Soil Conservation Service guidelines to control and mitigate erosion associated with development
- encourage vegetative and other non-structural approaches to erosion mitigation

- permit structural methods of stabilization only in those cases where existing facilities are immediately endangered and non-structural methods have been found to be infeasible
- maintain natural dynamic relationships between littoral sediment sources and depositional features by avoiding structures which significantly divert littoral drift
- prohibit stabilization works which will have an immediate adverse effect on adjacent littoral systems or properties unless absolutely necessary for protection of existing facilities
- require setbacks in erosion hazard areas which insure stability and structural integrity for the expected economic life span of the development
- prohibit construction of new habitable dwellings in flood related erosion zones
- encourage use of sediments dredged from navigation channels for erosion control and beach nourishment projects where feasible
- discourage new dredging in areas of high sedimentation

5. UPLAND DRAINAGE

Definition: The transmission of water, received as rainfall, over land or through the subsurface.

Considerations:

- groundwater levels
- water quality and supply
- effect on biological community
- nature of disturbance: extent, magnitude, period
- characteristics of drainage:
 - volume of runoff
 - groundwater flow and recharge
 - evapotranspiration
 - peak frequencies - 1 year, 5 years, 50 years, etc.
- nature of drainage area:
 - vegetative cover
 - soil types
 - impervious surfaces and subsurface areas
 - aquifers
 - storage
 - conveyance capacity of drainageways

Advisory guidelines:

- maintain natural conveyance characteristics of floodways (river and stream channels)
- require floodplain use and development to comply with HUD-FIA regulations
- discourage alteration of drainage patterns which is likely to aggravate erosion

- prohibit diversion of water from one local watershed to another
- require installation of artificial storm water retention facilities with storage capacities equivalent to those eliminated
- maximize natural plant cover in water sheds as a mechanism to retard run off and soil erosion
- minimize impervious surfaces associated with development
- apply appropriate S.C.S. guidelines to control and mitigate runoff conditions resulting from development

6. COASTAL FLOODING

Definition: The inundation of coastal lands as caused by a normal or extreme flood event.

Considerations:

- frequency of the event
- elevation of surge
- extent of flooding
- wave run up and energy dissipation
- structural design requirements
- alternative locations
- nature of use
 - permanent vs. seasonal
 - water dependent vs. non-water dependent
 - inhabited vs. uninhabited
- effect of activity on surroundings as regards flooding
- shoreline configuration and bathymetry
- site exposure; open cost vs. embayment
- catastrophic flood related erosion

Advisory guidelines:

- require use and development of coastal flood hazard areas consistent with HUD-FIA regulations
- limit protection works or activities to those hazard areas already developed
- prohibit habitable development in high velocity zone (V-Zone as defined by HUD-FIA mapping)
- maximize plant cover within coastal flood hazard areas particularly on those features which serve as natural buffers such as, beaches, dunes, duneridges, wetlands and bluffs
- give highest priority to recreational, other non-structural and water dependent uses in the hazard area

7. AIR QUALITY

Definition: A measure of the suitability of air to support healthy human, plant, and animal populations and its potential for causing property damage as indicated by the following components:

- particulates
- sulfur oxides
- carbon monoxide
- photochemical oxidants
- hydrocarbons
- nitrogen oxides

Considerations:

- source of emissions
- volume of emissions
- emissions
- atmospheric conditions
- duration of emission (continuous, periodic)
- ambient air quality

Advisory guidelines:

- apply existing State and Federal air quality standards
- preserve or improve ambient air quality

8. VISUAL QUALITY

Definition: The visual aesthetic characteristics of a site and its surrounding including its natural and manmade components and its value in providing points for panoramic view.

Considerations:

- existing visual quality of site
- consistency of proposed development with the aesthetics of the surroundings
- affect of development on vantage points on adjacent land

Advisory guidelines:

- maintain aesthetics of sites through building design which is compatible and consistent with existing natural and cultural surroundings
- vistas and viewpoints should not be blocked or obscured by proposed development or other obstructions such as billboards, transmission lines or high rise buildings
- maintain and enhance the visual character of areas which are representative of Connecticut's marine cultural heritage
- protect the integrity of the environs of historic sites, structures and districts against incompatible land uses (gas stations, supermarkets, drive-ins and heavily travelled highways)
- encourage the preservation of clusters of houses which are not of individual significance but which as a whole are architecturally or historically significant (historic districts)
- site and design development so as to protect views to and along the sound and to the major river valleys and other scenic coastal areas

- minimize the alteration of natural landforms
- restore and enhance visual quality in visually degraded areas where feasible
- discourage the construction of billboards and off-premise commercial signs in the coastal area and encourage the removal of existing billboards and off-premise signs.

IV. Examples

The examples presented in the following text are intended to represent the basic flow of events during the processing of typical applications subject to Coastal Site Plan Review. Activities subject to the review and the review procedure were identified and discussed in section IV of this report.

The examples cited here have been chosen to represent less complex proposals which may be encountered. In general, however, any activity subject to Coastal Site Plan Review (subdivisions, etc., variances, special exceptions, P.U.D.'s, municipal improvements, etc.) would be evaluated in a similar manner to the cited examples depending upon its location with respect to the coastal boundary and coastal resources.

Example 1

Activity: Construction of a small commercial complex outside of the coastal boundary.

This example is representative of the type of activity which would not involve coastal site plan review. Specifically, this activity does not require coastal site review due to the fact that it is located outside the coastal boundary. As a result, only normal planning and zoning procedures need be applied in the making of a regulatory decision.

Example 2

Activity: Construction of an addition to an existing conforming residential dwelling within the coastal boundary.

Constructions of an addition to an existing structure is one of a number of activities which have been optionally exempted from coastal site review by section 20 of the proposed legislation. Here again, as in example 1, only relevant planning and zoning procedures need be applied.

Example 3

Activity: Construction of a small commercial complex within the coastal boundary, in a designated flood hazard area and adjacent to a tidal wetland.

In processing an application for the type of activity described above, reasonably detailed coastal site review would be necessary since the project not only lies within the coastal boundary but is located in a hazard area and has the potential of impacting a tidal wetland (Figure 1, step 3). Its location adjacent to the wetland is of particular importance since this places it outside state regulatory jurisdiction.

Coastal site review of the project could be accomplished following, or simultaneously with standard zoning evaluation at the discretion of the regulator (in this case the planning or zoning commission). During the first phase of evaluation, environmental

analyses (Figure 1, step 4) would be performed. Using maps, advisory guidelines and, if necessary, technical assistance provided by CAM, the proposed site would be evaluated and relevant data compiled. In this case the resource types involved are readily identifiable as a flood hazard area and a tidal wetland. Under these categories of resources advisory guidelines would call for identification of basic biological components of the site as well as physical and chemical processes associated with the site. For example, the following could be identified and analyzed as part of the environmental analysis:

- storm water elevations and frequencies
- susceptibility of the site to flood related erosion
- susceptibility of the site to damaging storm waves
- drainage patterns
- water quality of the water body involved
- flora occurring on the site or in the adjacent wetland
- important fauna occurring on or using the site or adjacent wetland
- soil types and limitations
- presence and quality of groundwater and aquifers
- wetland circulation patterns
- general importance of the site as a natural flood and/or erosion buffer
- relationship of the site to the surrounding landforms and systems

Following the environmental analysis, the proposed commercial complex and related construction techniques can be reviewed in detail in the context of the proposed site during the project analysis phase (Figure 1, step 5). At this point resource impacts will be identified and project modifications and/or alternatives which would eliminate or lessen impacts could be determined. Impacts adversely affecting any of the site components or processes investigated during the environmental analysis would be identified and judged as to their acceptability, permanence and necessity. In addition to the evaluation of environmental impacts during the project analysis, social benefits and liabilities could also be determined. In this particular instance areas which might be investigated relating to social impacts include:

- alleviation or generation of flood or erosion hazards
- infrastructure costs (sewers, roads)
- costs of support services (fire protection, etc.)

The final step in coastal site review, as in any regulatory process, is the making of a decision to approve or disapprove the application. This step requires the balanced consideration of all salient issues raised by the combined planning, zoning and coastal site reviews. Positive and negative environmental impacts must be weighed along with social benefits and liabilities in the attainment of a wise, resource based decision. Decision alternatives applicable to this example are:

1. Denial on the basis of relevant planning and zoning criteria (setbacks, height limitations, zone use restrictions).
2. Denial on the basis of environmental criteria (unacceptable impacts on the resource type and physical or chemical processes or disruption or elimination of major biotic components).
3. Approval with modifications designed to lessen or eliminate the project's environmental impacts or make it conform with relevant planning and zoning regulations.
4. Approval without modifications or conditions (this assumes minor or non-existent environmental impacts and conformance with relevant planning and zoning regulations).

All normal avenues of appeal would be open to an applicant in the case of a denial.

Example 4

Activity: Construction of a small commercial complex within the primary boundary, in a flood hazard area and partially within the bounds of a state regulated tidal wetland.

For all intents and purposes the processing of an application of this type by the municipal zoning board would be the same as that identified for Example 3. Coastal Site Plan Review would utilize the same guidelines and maps with needed technical assistance provided by the state. However, since a portion of the activity is to be located within a regulated tidal wetland a state permit is also required. Processing on the state level would require analysis similar to coastal site review focusing on the wetland land immediately related functions, processes and biological communities.

Generally state permit evaluation should precede local processing depending on the desire of the applicant.

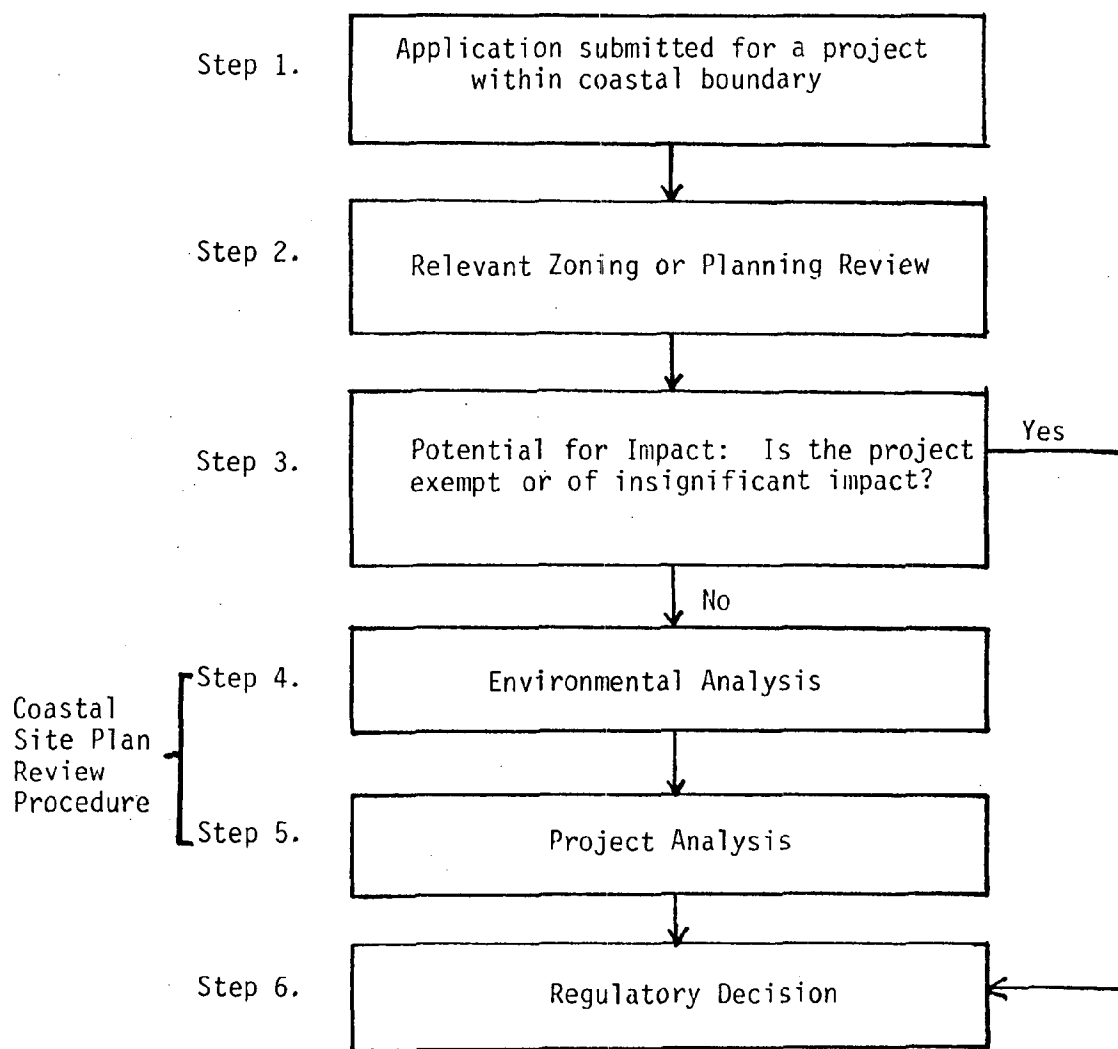


FIGURE 1
MUNICIPAL REVIEW OF COASTAL PROJECTS

APPENDIX E
MODEL MUNICIPAL COASTAL PROGRAM

MODEL MUNICIPAL COASTAL PROGRAM

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
COASTAL AREA MANAGEMENT PROGRAM
JANUARY, 1979



PREFACE

The Connecticut Coastal Area Management Program was established in August, 1974, under the auspices of the Federal Coastal Zone Management Act of 1972. Passed by Congress in response to a perceived need for wise and balanced planning in the coastal zone, the Act gave the nation's 34 coastal states and territories the opportunity and financial means to set up planning programs for their shorelines. Although participation in coastal planning under the CZM Act is purely voluntary, all of the coastal states have set up programs.

The CZM Act provides federal funding for 80% of the costs of designing a coastal management program, if the state complies with certain broad procedural guidelines. Four years are allowed for the planning process; at the end of that time the state must submit a final management plan for federal approval in order to qualify for continued federal funding to implement the plan and its recommendations.

Now in its fourth year, the Connecticut program, under the guidance of an Advisory Board, is preparing final recommendations for possible implementation of a coastal management program. This planning report contains a model municipal coastal program which is prepared in partial fulfillment of the requirements of P.A. 78-152. The model provides an example of a municipal coastal program which is compatible with the approach outlined in Planning Report No. 27: CAM Report to the Legislature's Interim Study Committee on Coastal Management.

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INTRODUCTION

This model municipal program illustrates the kinds of information that would be included in municipal coastal programs if a comprehensive, shared state-local coastal management program is implemented in Connecticut. For illustrative purposes, the model was prepared for the hypothetical Town of Old Port, Connecticut.

In developing the Old Port model, every effort was made to create situations similar to those confronting a cross section of Connecticut's coastal municipalities. However, the wide variation among coastal municipalities in terms of level of development, character, economic base, goals for the future, and planning capabilities makes it difficult to prepare a model which would apply equally among all towns. For example, rural municipalities may be less concerned with port development and other related issues, i.e. dredging and expansion of energy receiving and storage facilities, while urban municipalities may find these issues particularly relevant. Rural municipalities may, because of growth pressure along the coast, wish to direct more attention to growth related issues, i.e. conversion of summer homes to year round use and preservation of unique town character. Thus, while the model is useful in illustrating a general approach to coastal program development, each municipality would have to employ a specific approach based on its individual needs and desires.

The Municipal Coastal Program is one of two major components of a comprehensive coastal management system at the local level. Together, the Municipal Coastal Program and the Coastal Site Plan Review would give municipalities the authority to consider and base land use regulatory decisions on the anticipated impacts of proposed activities on coastal resources. In contrast with and in support of this project-by-project management component, the Municipal Coastal Program would provide municipalities with an opportunity to undertake coordinated long range planning and management of their coastal resources. Thus, the Municipal Coastal Program would give overall direction and guidance for the case-by-case Site Plan Reviews. It would facilitate and add predictability to the review process by providing for planning based on coastal resource management, and by making municipal zoning and related ordinances consistent with long term management objectives.

The Municipal Coastal Program would yield other benefits as well. Municipalities would receive financial and technical assistance from the state coastal management program to develop and implement Municipal Coastal Programs. This assistance would allow localities to update and expand their economic, fiscal, demographic and natural resource data base for the coastal area and to advance their existing planning capabilities. Coordination between various levels of government would be improved through preparation and implementation of Municipal Coastal Programs because goals and policies would be consistent at both the state and local level. Conflicts between municipalities would be reduced due to greater uniformity in municipal management of coastal resources. Further, in preparing a Municipal Coastal Program, municipalities would have an opportunity to consider and address problems of cumulative resource impacts which may not be adequately handled by individual site plan reviews. Coastal communities would also have an opportunity to identify and analyze potential problems of a

non-regulatory nature, such as problems relating to the management of municipal-owned properties, or the location of improvements to municipal roads, sewers, water lines, and other utilities.

The chart in Appendix A illustrates the process for developing a Municipal Coastal Program. The text which follows is organized around the major steps presented in the chart.

I. EXISTING CONDITIONS

In preparing a municipal coastal program, municipalities would begin the planning process by examining existing land use, and economic and cultural conditions within the coastal boundary. Of particular importance is existing land use, future land use proposed in the municipal Plan of Development, and existing zoning. These factors along with the coastal resource information supplied by the Coastal Area Management Program will serve as the basis for identifying relevant coastal issues and highlighting any incompatibilities between the proposed future uses within the coastal boundary and the capability of coastal resources to support these uses.

In their review of existing conditions, municipalities might also want to examine economic, fiscal, and demographic trends affecting the town. Since these trends may affect the future utilization of land within the coastal boundary, and to the extent that information may be outdated, municipalities may find it expedient to use this opportunity to update its data base in these areas.

The following discussion and Figures 1, 2 and 3 describe existing conditions in the model town of Old Port. It is important to note that these maps are included to enhance the reader's understanding of the model. Since most Connecticut municipalities will already have an up-to-date land use map (Figure 1), a map illustrating the municipal Plan of Development (Figure 2), and a current zoning map (Figure 3), they need not reproduce them in their municipal coastal programs. These maps may be included, however, if a municipality feels they would be useful in understanding the program, or that they are necessary for understanding a particular issue.

Existing Conditions: Town of Old Port

Existing Land Use Map

The map of existing land use in Old Port (Figure 1) is a generalized presentation of how the land and structures on the land are used at the present time. The coastal boundary has been inscribed on the existing map which would have been prepared and kept up-to-date by the Town's Planning and Zoning Commission.

The land use types and patterns occurring in the coastal boundary are typical of those found in many coastal communities. The industrial and commercial uses are concentrated around the town center, which has expanded along Route 1 and the upper portion of the town harbor. Most of the remaining land in the town is used for residential purposes and has been developed at several densities. There are also areas of open space, recreational and institutional use as well as scattered vacant parcels.

1965 Municipal Plan of Development

Figure 2 is the graphic representation of the goals, policies, and recommendations contained in the 1965 (most recent) Town Plan of Development for the hypothetical Town of Old Port. The map depicts what the

Town considered to be its desired future and reflects the principles and reasoning that went into the development of the 1965 Plan's policies and recommendations at the time it was prepared. (The year 1965 has no particular significance but was chosen as an arbitrary date for an existing Plan of Development which had given little consideration to coastal resources or issues. It is recognized that many Connecticut municipalities do have more recent plans which may be more sensitive to coastal resources and issues. In such cases fewer changes might be necessary than are illustrated in the following sections of this model for the Town of Old Port.)

Existing Zoning Map

Figure 3, Old Port's map of existing zoning, is the Town's officially adopted map of zoning districts. It illustrates what a typical zoning map might look like for a coastal municipality in which coastal resources and issues were not given particular recognition. The Town is divided into zoning districts for purposes of regulating use, density of population, coverage of lots, bulk of structures, etc. As the zoning ordinance and map represent one of the legal devices used to achieve the objectives of the Town Plan of Development, there is some degree of correlation between the Old Port Plan of Development (Figure 2) and the Old Port Zoning Map (Figure 3). However, the degree of correlation is not as much as may generally be desirable to promote an effective link between planning and implementation.

Note that for the purposes of this model, Figures 2 and 3 illustrate only the area within the coastal boundary.

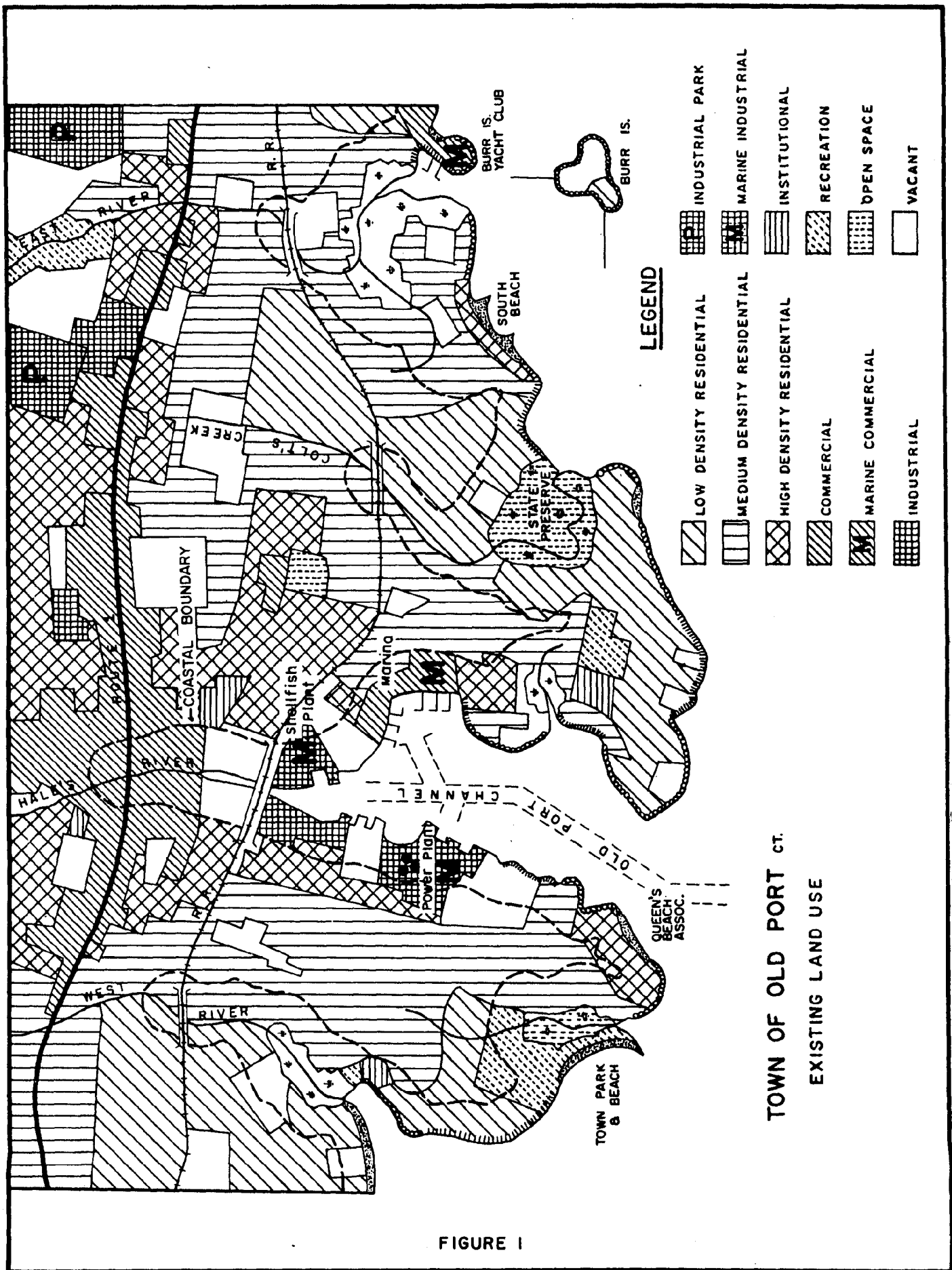


FIGURE 1

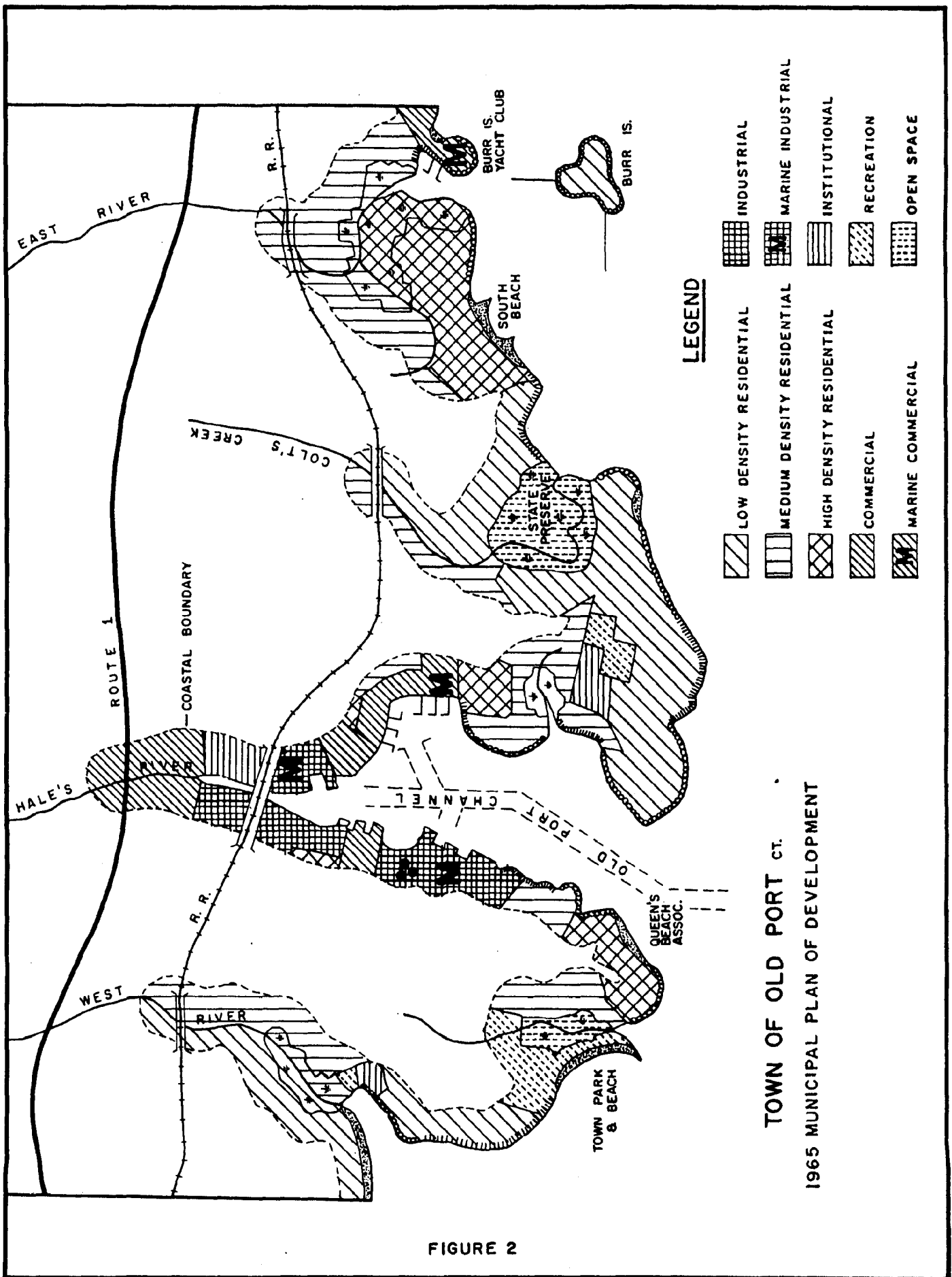


FIGURE 2

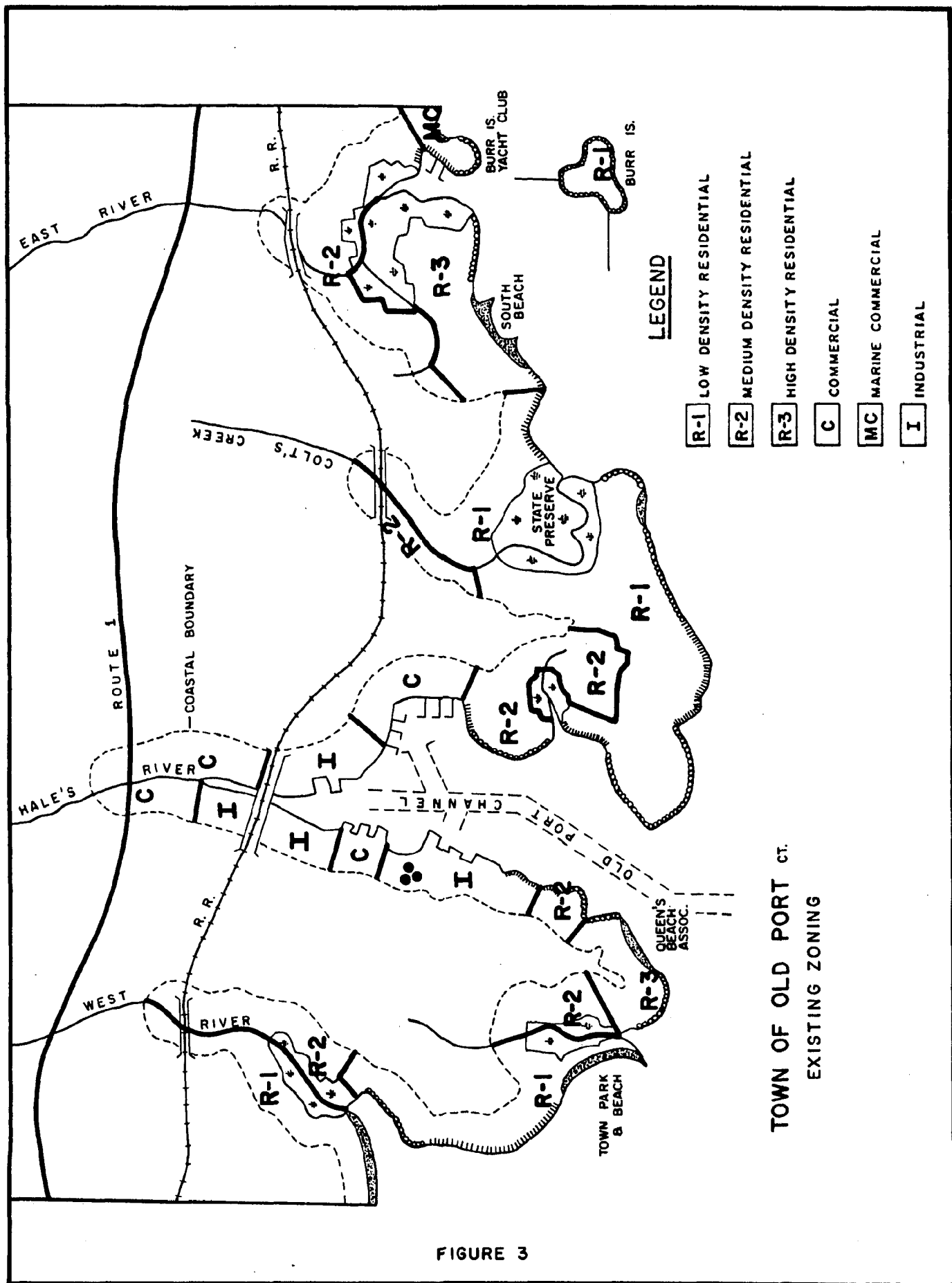


FIGURE 3

II. COASTAL RESOURCES

Utilizing maps and other technical assistance supplied by the Coastal Area Management Program, municipalities would, in preparing municipal coastal programs, identify, describe, and assess the quality of the coastal resources within the coastal boundary. In performing this task, municipalities would determine the capability and sensitivity of coastal resources to support and accommodate anticipated future uses without destroying the resources or significantly impairing their natural functions.

To aid municipalities in assessing their resources, the Coastal Area Management Program would provide technical and financial assistance. Assistance will include maps and other information concerning the location and condition of coastal resources; general technical background information on the beneficial and adverse impacts of various types of development on coastal resources; DEP staff personnel with technical expertise in biology, ecology, water resources, marine engineering, and planning; and funding to retain staff or consultants to aid in the resource analysis.

Coastal Resources: Town of Old Port

Figure 4 depicts the coastal resources of Old Port which generally represent and illustrate the type and variety of resources found along Connecticut's coastline. As shown, the Old Port shoreline contains areas of rocky shorefront, bluffs and escarpments, and an occasional stretch of sandy beach. Located along the inlets of the coast are several tidal wetlands. In the nearshore waters, two shellfish beds and two tidal flats have been identified. Also identified are flood hazard areas, a large stretch of urban shorefront, and areas of shoreland.*

In assessing the quality of these resources, the Town of Old Port might, for example, consider and discuss the following factors in its Town Plan of Development: erosion and sedimentation, destruction of tidal wetlands, water quality, the shellfish industry, the condition of Old Port's shellfish beds, and the Town's marine-historic resources. Other municipalities may need to expand their discussion of qualitative factors depending upon the type, quantity, and condition of resources within its coastal boundary.

* Shorelands are lands within the coastal boundary which do not contain fragile coastal resources such as tidal wetlands, beaches or intertidal flats and are not subject to dynamic coastal processes such as flooding or erosion. (See Section 4 of the proposed Coastal Area Management Legislation in Planning Report #27 for definitions of the coastal resources.)

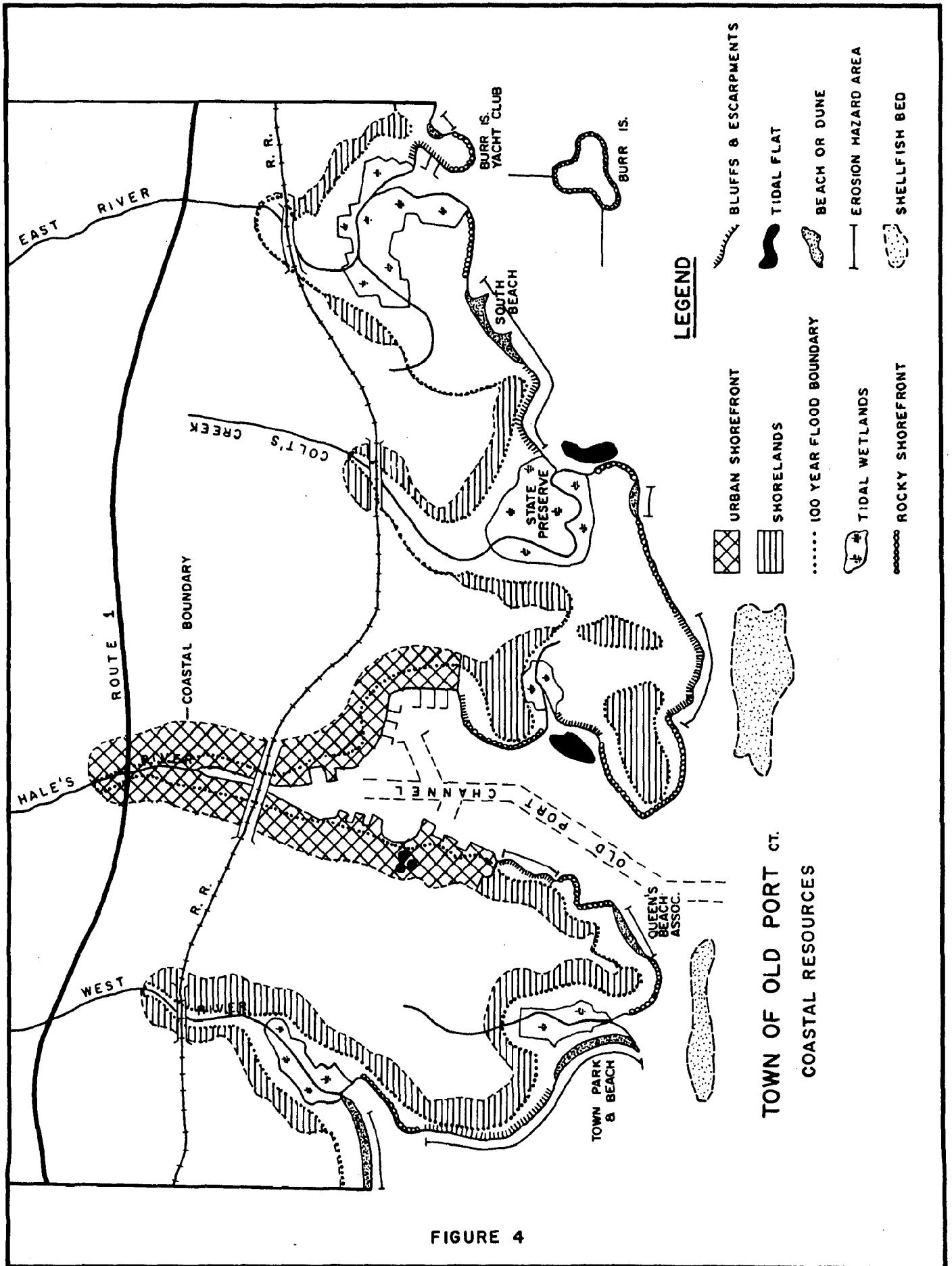


FIGURE 4

III. ISSUE IDENTIFICATION

In preparing municipal coastal programs, municipalities would identify and assess all significant coastal related issues, problems or needs which they would then attempt to correct through their municipal coastal programs. Any concern that affects or involves coastal land and/or water may be identified. For example, beach erosion, shortage of recreation facilities, overdevelopment of the coast and the need for redevelopment in urban areas are common issues confronting many of Connecticut's coastal municipalities.

Identification of issues and problems need not be confined to those existing within the coastal boundary. Municipalities may wish to identify issues transcending the coastal boundary insomuch as these issues relate to activities along the coast. For example, a major sewer line or a highway interchange located outside of the coastal boundary could influence land use patterns within the coastal boundary.

The following issues have been identified in the hypothetical Town of Old Port. While these issues and problems illustrate those confronting many of Connecticut's coastal communities, the list is not exhaustive. Therefore, municipalities may want to address many other coastal issues not included below.

Coastal Issues: Town of Old Port

1. The overdevelopment of parts of Old Port's coastline which has resulted in the loss of visual access, public right of way, and an encroachment upon natural processes.
2. A need for improved and expanded public recreational facilities in Old Port.
3. A shortage of public and private marina space and boat launching areas.
4. Declining commercial activity in the downtown area attributable in part to increased commercial development along Route 1.
5. The damage to homes and coastal property caused by periodic flooding.
6. The filling and degradation of Old Port's tidal wetlands.
7. Accelerating beach and bluff erosion, particularly serious in the area of the town park, Queens Beach and South Beach.
8. The potential location of additional energy facilities on Old Port's coast and the expansion of existing oil storage facilities.
9. The decreased productivity of shellfish beds off the coast of Old Port due to poor water quality and the subsequent decline in the Town's shellfish industry.
10. The impending need to dredge Old Port's navigation channel.
11. A perceived need for greater opportunity to live in proximity to the shore.

12. The desire to retain and attract industrial uses within the town because of industry's contribution to the tax base and employment.
13. The numerous problems of the densely developed South Beach area including the negative impact of private septic systems upon water quality, deteriorated condition of buildings, conversion of summer residences to year round use, and damage caused by periodic flooding and substantial erosion.
14. The proposed use of a vacant town-owned parcel on the coast for a municipal office complex despite the fact that the complex is not a water-dependent use.
15. The underutilization and blighted condition of the railroad station in the town center.
16. The need to coordinate the Town's Zoning ordinance with the municipal Plan of Development.

IV. REVISIONS TO THE MUNICIPAL PLAN OF DEVELOPMENT

Municipal Coastal Goals and Policies

Using the information obtained in the preceding stages of the planning process, the municipality would develop municipal coastal goals and policies. These would appear in the revised municipal Plan of Development and provide direction for the entire Municipal Coastal Program.

The municipal coastal goals and policies should address the previously identified issues, problems and needs within the framework of existing conditions (land use, zoning, coastal resources) and should be consistent with the goals and policies proposed by the Coastal Area Management Program (see Planning Report No. 26, and Section 21 of the proposed Coastal Area Management Legislation).

In revising the existing municipal Plan of Development, the municipality could incorporate coastal goals and policies in a number of ways. At a minimum the municipality would undertake any necessary modifications to their existing goals and policies contained in the municipal Plan of Development to ensure consistency with the proposed statewide coastal goals and policies, the capabilities of the municipality's coastal resources, the identified coastal issues, and development and economic growth needs of the municipality. In addition, the municipality could choose to adopt and specifically include the relevant goals and policies prepared by the Coastal Area Management Program. Finally, the municipality may want to develop specific coastal policies to address their unique problems, issues and resources. These specific municipal goals and policies, however, should be consistent with the statewide goals and policies proposed by the Coastal Area Management Program.

The coastal program for the hypothetical Town of Old Port incorporates some of the statewide goals and policies directly into the model plan, and it also includes a number of hypothetical goals specific to Old Port. The sample goals and policies for the Town of Old Port appear below.

Coastal Goals and Policies: Town of Old Port

Commercial and Industrial

1. Concentrate new commercial and industrial development in the coastal area within the town center area in order to minimize urban sprawl and to prevent encroachment upon the Town's critical coastal resources.
2. Encourage water-dependent uses in areas within the coastal boundary which are recommended for commercial and industrial development.
3. Provide for public utilization and enjoyment of the urban waterfront by preserving Old Port's historic maritime character and by encouraging maritime uses which create additional opportunities for public access.

4. Recognize the importance, both historically and economically, of the Town's shellfishing industry and take appropriate measures necessary to ensure its revitalization and continued viability.

Residential

1. Locate roads, sewer and water lines and other capital improvements so as to encourage concentrated development in those areas capable of supporting such development and to discourage development (and re-development) in areas of fragile coastal resources.
2. Provide adequate opportunities to live in proximity to the coast by allowing for increased residential density in those areas capable of supporting such development and allowing for a mixture of housing types.
3. Incorporate flexible development techniques and special regulatory procedures for sensitive areas allowable under Connecticut General Statutes such as Planned Residential Development, Historic Districts, and Special Zoning Districts into Old Port's Ordinances and Regulations in order to minimize the adverse impact of development upon coastal resources and the unnecessary alteration of natural landforms.

Open Space and Recreation

1. Respond to the increasing demand for coastal related recreational opportunities by:
 - a. For town-owned land along the coast, giving high priority to recreational use.
 - b. Improving the capacity of existing town recreation facilities.
 - c. Developing a public boat launching ramp in an area where it will have minimal impact on coastal resources.
 - d. Acquiring additional land through purchase, easement, gift, etc. which is suitable for public recreational use.
 - e. Encouraging the development and provision of marine recreational facilities by the private sector.
2. Maintain the value of Burr Island as critical wildlife habitat and recreational open space. (Coastal Area Management Policy.)
3. Protect Old Port's remaining tidal wetlands from further degradation without unduly infringing upon private property rights.

Transportation

1. Encourage the improvement, upgrading and rehabilitation of existing transportation facilities and systems and the increased use of public transportation in the coastal area.

Coastal Waters

1. Encourage the maintenance and enhancement of Old Port's existing public navigation channels, basins, and anchorages and the dredging of new or expanded public navigation channels, basins, and anchorages. (Coastal Area Management Policy.)
2. Improve water quality and prevent further degradation of Old Port's coastal waters by implementing erosion and sedimentation control measures; adhering to residential, industrial, and commercial policies contained herein; preventing the expenditure of public funds for capital facilities with obvious adverse impacts upon water quality; and support state and federal water quality control measures.

Coastal Hazard Areas

1. Manage Old Port's coastal hazard areas so as to insure that development proceeds in such a manner that hazards to life and property are minimized; encourage non-structural solutions to flood and erosion problems except in those instances where structural alternatives prove unavoidable and necessary to protect existing inhabited structures, roads, sewer and water lines, other utilities, or water-dependent uses. (Coastal Area Management Policy.)

Facilities and Resource Uses of National Importance

1. Insure that the Town provides adequate planning for facilities and resources which are of national importance as defined in the proposed coastal management legislation and further, to insure that any restrictions or exclusions of such facilities or uses are reasonable. Reasonable grounds for the exclusion or restriction of a facility or use of national importance shall include a finding that such a facility or use 1) may reasonably be sited outside the coastal boundary, 2) fails to meet all applicable federal and state environmental, health and safety standards, or 3) unreasonably restricts physical or visual access to coastal waters. (Coastal Area Management Policy.)

Proposals and Recommendations for Municipal Coastal Management

The municipal coastal goals and policies incorporated into the plan in the preceding step will serve as a guide for formulating the revised land use, transportation and public facilities proposals and recommendations of the municipal Plan of Development. These specific proposals and recommendations for the future use of land in the municipality reflect the strategy chosen by the municipality for implementing coastal resource based planning.

A number of measures might be utilized by Connecticut's coastal municipalities to effectuate the goals and policies of their municipal Coastal Programs. Municipalities might consider:

- changing (reducing or increasing) a land use classification to make the category consistent with the coastal resource present

- changing (reducing or increasing) the proposed density or intensity of development, given a specific land use classification
- changing the proposed future growth pattern to direct development to suitable areas and away from sensitive or hazardous coastal resources
- changing land use control techniques to allow or encourage uses that conserve natural resources such as cluster development or planned residential development
- utilizing special overlay districts which impose a set of requirements in addition to those of the underlying zoning district (e.g. erosion control setbacks, floodplain districts)

In devising management proposals and recommendations, advisory guidelines prepared by the Coastal Area Management Program for assessing coastal resource impacts under the Site Plan Review may prove useful in determining the types of future uses the coastal resources could support without sustaining irreversible negative impacts.

Proposals and Recommendations: Town of Old Port

The following discussion, along with Figure 5 (Revisions to the municipal Plan of Development), illustrate the changes Old Port has made to the land use proposals and recommendations contained in the Town Plan of Development. The number preceding each revision also appears on Figure 5 and indicates the location of the change being described.

The chart in Appendix B summarizes these changes and the subsequent changes and additions to Old Port's municipal regulations and relates them to the coastal resources, issues, and policies previously discussed.

- 1) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Encourage the use of cluster development and setbacks.

This large undeveloped tract is in an area of low density residential development. The 1965 Town Plan of Development recommends that it be developed for low density residential use, and it is zoned as such. The tract is composed of tidal wetland, coastal hazard area and shorelands. The site can accommodate the recommended development, but by utilizing a flexible development technique such as clustering housing units, the portion of this site adjacent to the wetland can be set aside as open space. This will protect the wetland from development and eliminate the costs of developing in the flood hazard area.

- 2) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Designate the remaining tidal wetlands as Open Space.

The areas identified as tidal wetlands on the resource map are unsuitable for high density residential land use and should be protected

from further degradation. Open space classification is more compatible with the resource and the goal of protecting Old Port's remaining tidal wetlands. Also, designation of the tidal wetlands as open space in the Town Plan of Development qualifies the owner for the special tax considerations under P.A. 490 if the land is maintained as open space.

- 3) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Change land use recommendation from Industrial to High Density Residential.

This is a vacant parcel located between the power plant (industrial use) and an area of medium density residential development. The area is primarily shoreland (suitable for development) with a narrow portion along the coast designated coastal hazard area. The development of this land for high density residential use would have less of an impact on the resources than development for industrial use. It also fulfills a demand for additional opportunities to live near the coast, increases access and acts as an area of transition between the industrial and medium density residential developments.

- 4) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Change land use recommendation from Commercial to Marine Industrial.

This was once the site of an industrial use which has since been cleared, leaving the parcel vacant. The 1965 Town Plan of Development had recommended a commercial use for this area, and it was zoned accordingly. The coastal resource map shows this as an area of urban shorefront (a small portion of the site is within the flood hazard area) which can support industrial development. Since this area had been previously developed, and the shoreline altered, additional filling to protect any new structures built within the narrow flood hazard area would probably have minimal impact. A marine-related industrial use would be compatible with surrounding uses and could be strongly recommended. If needed, this area could easily accommodate expansion of the power plant (a marine-related industry).

- 5) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Change land use recommendation from Industrial to Commercial.

This largely vacant area is contiguous to the commercial district of the town center. It appears as urban shorefront on the coastal resources map with a small portion along the coast within the flood hazard area. Its use for commercial purposes is compatible with the resource and surrounding development. In combination with the recommended commercial development, multi-family housing could be provided. Not only would these uses be mutually beneficial, but the location offers additional opportunity to live near the coast.

- 6) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Change land use recommendation from Institutional to Open Space.

This vacant town-owned parcel has been proposed as the site for a new municipal office complex. Since this is the last undeveloped town owned parcel on the coast, and since the office complex is not

a water dependent use, a park would be a more beneficial public use of this land. A park would increase public access to the coast and the supply of open space. It could also become the focal point for revitalizing this section of the town center.

- 7) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Recommend increased (multiple) use of the railroad station for commercial use. Also, strive to enhance the marine-historic character of this structure and of the surrounding area.

The railroad station is underutilized and has become dilapidated. Since there is more space than needed for railroad use within the station, a commercial venture such as a restaurant, which would complement the area, could be encouraged. A refurbishment of the station is also recommended as part of the general rehabilitation of the shorefront commercial district. To enhance the marine-historic character of this area, a marine-historic district could be established. Within this district, uses that complement existing development would be encouraged and architectural design standards would be established. The refurbishment of the railroad station, the establishment of a park, and the creation of a marine historic district will encourage increased use of this area by the public, and possibly encourage increased use of public transportation.

- 8) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Change land use recommendation from Commercial to Marine Commercial.

The Town Plan of Development recommends commercial use of this area. The coastal resource is urban shorefront which is suitable for development. The Town's policy is to encourage water-related uses along the coast, and a marine commercial district is consistent with this policy. The use of this area as a marina would help alleviate the marina space shortage.

- 9) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Recommend use of a portion of this parcel for a public boating facility.

In conjunction with the marine commercial use recommended for this area, the Town should acquire, through purchase or easement, enough land for the creation of a public boat launching area. This public boating facility and the marine-related commerce will be mutually beneficial and compatible with surrounding uses.

- 10) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Change land use recommendation from Low Density Residential to Medium Density Residential.

This is an area of low density residential development. The land is above the HUD Flood Hazard Line and is, therefore, outside the coastal hazard area. There is an increasing demand for residential locations along the coast, and this is one area where the land is capable of supporting that development without adverse impacts to the resource (shoreland), or to the character of the existing neighborhood.

- 11) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Recommend a detailed study of this area.

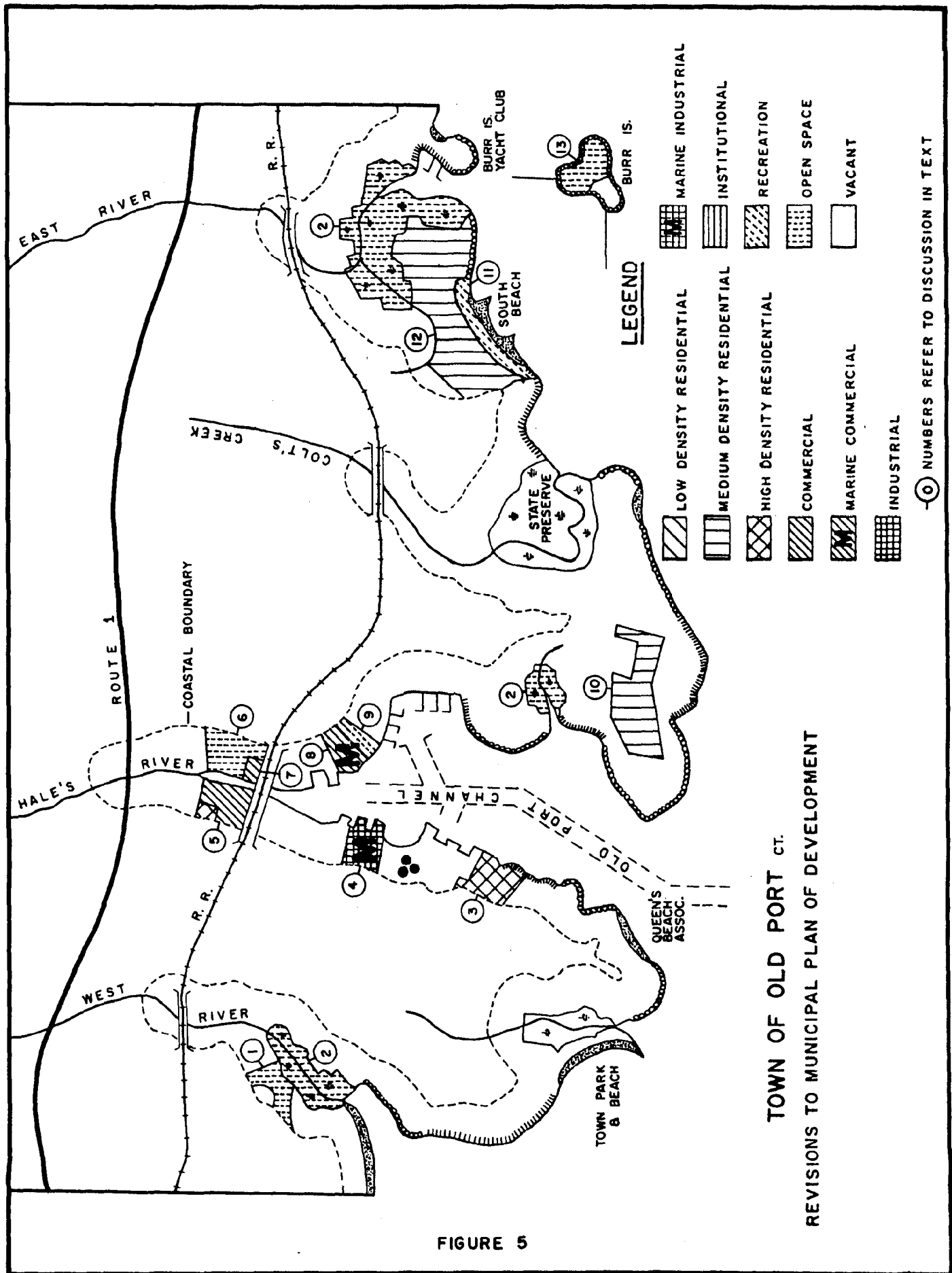
In this densely developed and deteriorated area, houses have been built on the beach. There are water quality problems caused by failing septic systems, periodic damage from coastal flooding, erosion of the beach caused by poor placement of groins, and a number of other problems due to overuse of a fragile resource. Conversion of many of these summer homes to year-round use is compounding some of these problems. A detailed study of the area could be undertaken to investigate the feasibility of town purchase and redevelopment of this area. Given the number of problems associated with the intense development of the area, and the need for an additional town beach, reuse of this beach area as open space for public recreation could be given serious consideration.

- 12) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Recommend that the density of residential development does not increase.

This is an area of medium density residential development. The 1965 Town Plan of Development recommends high density residential development for this area. However, the entire tract is within the coastal hazard area, so further development should be discouraged. Additional opportunities for high density residential development have been provided in other more suitable areas within the coastal boundary.

- 13) REVISION TO THE TOWN PLAN OF DEVELOPMENT - Recommend that a portion of the island remain in its natural condition.

By virtue of their location, islands are limited and valuable coastal resources. Islands are an ideal location for wildlife habitats and passive recreational areas. The Town should consider future acquisition of all or part of this island.



V. REVISIONS TO MUNICIPAL REGULATIONS

While the revision of a municipality's Plan of Development is a major step in the management of the coastal area, even more significant in terms of orderly development is the implementation of the Municipal Coastal Plan. This will be accomplished by revising the municipal zoning regulations and revising or adopting other regulations such as historic district ordinances, subdivision ordinances and others listed in Section 8 of the proposed coastal management legislation (September 1, 1978). The municipality should also utilize non-regulatory measures such as flood and erosion control projects, acquisition plans, and open space tax abatement programs to implement coastal management.

Revision to Municipal Regulations: Town of Old Port

Regulatory Measures

The Town of Old Port has revised its municipal zoning ordinances, regulations and zoning district map, and adopted additional regulations and ordinances to reflect the changes made in the previously-approved revised Town Plan of Development. These changes are described below. The letters preceding each change also appear on Figure 6 (Zoning Changes) and indicate the location of the changes being made. Also included with each ordinance change is either the specific Revision to the Town Plan of Development which that change implements, or a reference to a coastal goal that the change addresses.

- a. Zoning Change - Change all zoning designations on tidal wetlands to Low Density Residential.
 - Implements Revision to the Town Plan of Development #2 which designates the remaining tidal wetlands as open space.*
- b. Zoning Change - Change zoning designation from Industrial to High Density Residential.
 - Implements Revision to the Town Plan of Development #3 which recommends high density residential use for this area.
- c. Zoning Change - Change zoning designation from Commercial to Industrial.
 - Implements Revision to the Town Plan of Development #4 which recommends marine-related industry for this area.
- d. Zoning Change - Change zoning designation from Industrial to Commercial.
 - Implements Revision to the Town Plan of Development #5 which recommends commercial use for this area.

* This change is not intended to encourage the development of wetlands. As all land must be legally zoned for some use, Old Port's wetlands have been zoned for low density development -- the least intense development category in the Old Port zoning ordinance. In addition, a state permit for all regulated activities in tidal wetlands would still be required for all uses permitted by municipal zoning ordinances.

- e. New Ordinance - Adopt an ordinance establishing a Historic District under the provisions of Section 7-147a-m of the General Statutes of Connecticut.
 - This ordinance is designed to preserve the marine-historic character of this section of the town center by regulating alterations to the exterior architectural features of the buildings. The Town hopes to strengthen the economic and cultural condition of this area by preserving and protecting buildings and places of marine-historic interest.
- f. Zoning Change - Change zoning designation from Industrial to Marine-Commercial.
 - Implements Revision to the Town Plan of Development #8 which recommends marine-commercial uses for this area. A marine commercial zone limits uses to marine related trades and services.
- g. Zoning Change - Change zoning designation from Commercial to Marine-Commercial.
 - Addresses the town goals of encouraging water-dependent commercial uses within the coastal boundary.
- h. Zoning Change - Change zoning designation from Low Density Residential to Medium Density Residential.
 - Implements Revision to the Town Plan of Development #10 which recommends increasing the density of this residential area.
- i. Zoning Change - Change zoning designation from High Density Residential to Medium Density Residential.
 - Implements Revision to the Town Plan of Development #12 which recommends that the existing residential density in this area not increase.
- j. Zoning Change - Change zoning designation from Low Density Residential to an Island Conservation Zone.
 - Implements Revision to the Town Plan of Development #13 which recommends that most of the island remains in its natural condition. An island conservation zone is a very low density residential zone. It allows for limited residential development with most of the area remaining open.
- k. Zoning Change - Overlay Erosion Control Districts on those areas identified on Figure 4 (Coastal Resources) as erosion hazard areas. This district would establish setback requirements for structures which would be a function of the life expectancy

of the structure and average recession rate (or erosion rate) of the area of shoreline designated as erosion prone.

1. New Ordinance - Adopt a Planned Unit Development (P.U.D.) Ordinance consistent with the provisions set forth in Section 8-13c and d of the General Statutes of Connecticut.
 - This zoning technique provides for flexibility in site design, and along with other advantages, allows mixed uses, better design and arrangement of open space and retention of resources such as coastal hazard areas.
- m. Subdivision Changes
 - Amend the subdivision regulations to require that 1) developers donate a minimum percentage of permanent open space in large subdivisions and 2) to allow for reduced lot sizes in specified "open space subdivision zones" when additional permanent open space is reserved.
 - These subdivision changes would encourage developers to preserve portions of their property which contain sensitive coastal resources such as tidal wetlands, beaches, or coastal hazard areas. Open space could be permanently deeded to the town, a conservation organization, or an association of property owners within the subdivision.

Non-Regulatory Measures

In addition to the changes made to Old Port's zoning ordinance and map and subdivision ordinance, the Town has also undertaken a number of non-regulatory measures to promote wise management of its coastal area. Among those measures are:

1. The establishment of a committee to study and propose alternative solutions to the identified problems in the South Beach area. Possible measures could include: removal or relocation of groins, re-development of the beach and immediate shorefront area (containing dilapidated, seasonal housing in the high velocity flood zone as identified in the HUD Flood Insurance Program), Town purchase and reuse of the beach for public recreation.
2. The designation of the tidal wetlands as open space on the Town Plan of Development allowing owners to take advantage of the tax abatement provisions in P.A. 490 and thereby encouraging the maintenance of tidal wetlands as privately-owned open space.
3. The development of a town park in the commercial center to provide access to the coast and to promote private commercial development in the surrounding area as a part of the proposed revitalization of the marine-historic commercial center.
4. The location and phasing of water and sewer lines so as to direct development to areas which are suitable for new growth.
5. The development of a list for acquiring open space land to include the following: all or a portion of Burr Island, the South Beach area, and a portion of the commercial parcel recommended for a public boating facility (see Revisions to the Town Plan of Development #9).

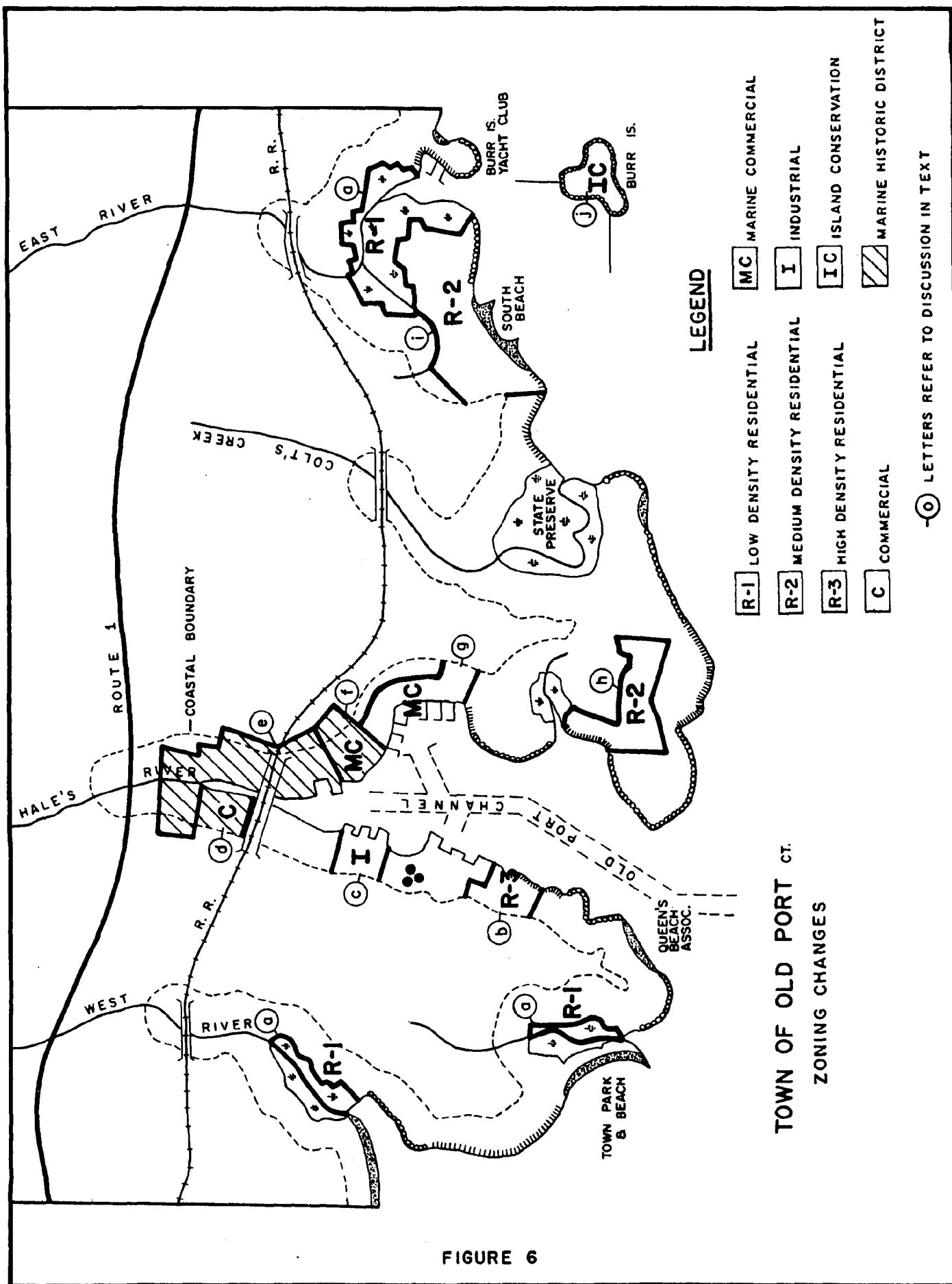


FIGURE 6

VI. FACILITIES AND RESOURCE USES OF NATIONAL IMPORTANCE

The proposed coastal management legislation requires that Facilities and Resource Uses of National Importance be given adequate consideration in both the State and Municipal Coastal Programs. Adequate consideration means reviewing the proposed facility or uses in light of statewide concerns. Any restriction or exclusion of such facilities or uses must be based on reasonable grounds. Reasonable grounds for restriction or exclusion as defined in the proposed legislation shall include a finding that such a facility or use: 1) may reasonably be sited outside the coastal boundary (i.e., inland), 2) fails to meet all applicable federal and state environmental, health and safety standards, or 3) unreasonably restricts physical or visual access to coastal waters.

The definition of facilities and resource uses of national importance appears in Section 4 of the proposed coastal management legislation dated September 1, 1978.

Facilities and Resource Uses of National Importance: Town of Old Port

Figure 7 (Facilities and Resource Uses of National Importance) illustrates those facilities and resource uses of national importance that the Town of Old Port has identified within its coastal boundary. As stated in the Goals and Policies section of Old Port's revised Town Plan of Development, it is the policy of the Town to provide adequate planning for, and not arbitrarily restrict or exclude, these facilities or uses.

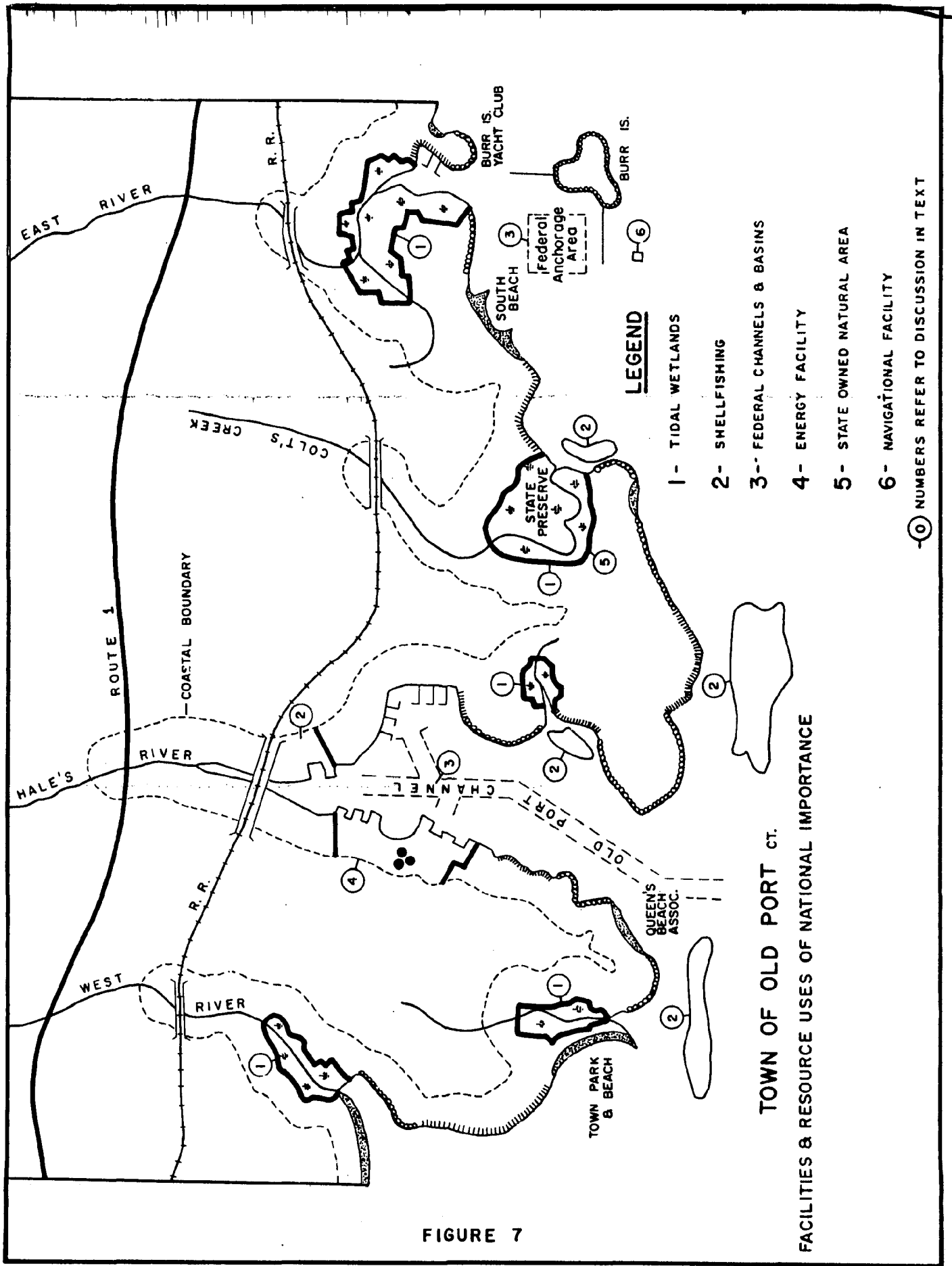


FIGURE 7

APPENDIX F
COASTAL MAPS

APPENDIX F
COASTAL MAPS

The Connecticut Coastal Area Management Program has prepared a set of maps which identify major coastal resources throughout the Connecticut coastal boundary. These maps have been compiled at a detailed scale of 1:24,000 using U.S. Geological Survey Topographic Maps as a standard base. This Appendix contains a sample of these coastal maps reproduced at the base map scale for a small area at the mouth of the Connecticut River. The sample set presented in this Appendix contains the following maps:

COASTAL RESOURCES
REGULATED TIDAL WETLANDS
SHELLFISH CONCENTRATION AREAS
SOILS
SHORELINE CHANGES
LITTORAL SEDIMENT SYSTEMS

Under the management program these and other coastal maps will be available for use by both state and municipal agencies in carrying out their coastal planning and management responsibilities. At the state level the maps will serve as a source of information for preparing and revising state plans and for conducting project reviews under the existing state coastal regulatory programs. At the local level, the maps will serve as a source of information for preparing municipal coastal programs and for reviewing coastal site plans. To assist state and local agencies in the use and interpretation of these maps, interpretive materials, planning and regulatory guidelines, and CAM technical assistance will also be available.

FIGURE F-1
SOILS

LEGEND

<u>NUMBER</u>	<u>MAP UNIT NAME</u>
1	Adrian and Palms Muck
2	Agawam fine sandy loam, 0-3% slopes
3	Agawam fine sandy loam, 3-8% slopes
9	Beaches
11	Birdsall silt loam
22	Broadbrook silt loam, 3-8% slopes
24	Broadbrook very stony silt loam, 3-8% slopes
29	Canton very stony fine sandy loam, 3-8% slopes
30	Canton very stony fine sandy loam, 8-15% slopes
31	Canton very stony fine sandy loam, 15-25% slopes
32	Canton and Charlton extremely stony fine sandy loams, 3-15% slopes
34	Carlisle Muck
38	Charlton very stony fine sandy loam, 3-8% slopes
39	Charlton very stony fine sandy loam, 8-15% slopes
40	Charlton-Hollis fine sandy loams, 3-15% slopes
54	Enfield silt loam, 0-3% slopes
55	Enfield silt loam, 3-8% slopes
58	Haven silt loam, 0-3% slopes
59	Haven silt loam, 3-8% slopes
61	Hinckley gravelly sandy loam, 0-3% slopes
62	Hinckley gravelly sandy loam, 3-15% slopes
63	Hinckley gravelly sandy loam, 15-35% slopes
65	Hollis-Charlton fine sandy loams, 3-15% slopes
66	Hollis-Charlton complex, 15-35% slopes
67	Hollis-Rock outcrop, 3-15% slopes
68	Hollis-Rock outcrop complex, 15-35% slopes
81	Merrimac sandy loam, 0-3% slopes
82	Merrimac sandy loam, 3-8% slopes
84	Montauk fine sandy loam, 3-8% slopes
86	Montauk very stony fine sandy loam, 3-8% slopes
87	Montauk very stony fine sandy loam, 8-15% slopes
91	Narragansett very stony silt loam, 3-8% slopes
93	Narragansett extremely stony silt loam, 3-15% slopes
94	Narragansett extremely stony silt loam, 15-25% slopes
95	Narragansett-Hollis complex, 3-15% slopes
98	Pawcatuck mucky peat
103	Paxton very stony fine sandy loam, 3-8% slopes
104	Paxton very stony fine sandy loam, 8-15% slopes
109	Podunk fine sandy loam
113	Rainbow very stony silt loam, 0-3% slopes
114	Rainbow very stony silt loam, 3-8% slopes
116	Raypol silt loam
118	Ridgebury, Whitman, and Leicester extremely stony fine sandy loams
119	Rocky outcrop-Hollis complex
121	Rumney fine sandy loams
123	Saco silt loam
124	Scarboro silt loam
132	Sudbury sandy loam, 0-3% slopes
133	Sudbury sandy loam, 3-8% slopes
139	Tisbury silt loam, 0-3% slopes
140	Tisbury silt loam, 3-8% slopes
141	Typic Udorthents, cut and fill
142	Unadilla silt loam, 0-3% slopes
145	Walpole sandy loam
148	Westbrook mucky peat
149	Westbrook mucky peat, low salt
160	Windsor loamy sand, 0-3% slopes
161	Windsor loamy sand, 3-8% slopes
164	Woodbridge fine sandy loam, 3-8% slopes
166	Woodbridge very stony fine sandy loam, 0-3% slopes
167	Woodbridge very stony fine sandy loam, 3-8% slopes
169	Woodbridge extremely stony fine sandy loam, 0-3% slopes
170	Woodbridge extremely stony fine sandy loam, 3-15% slopes
G.P.	Gravel Pit
W	Open Water

Source: U.S. Department of Agriculture. Soils Conservation Service

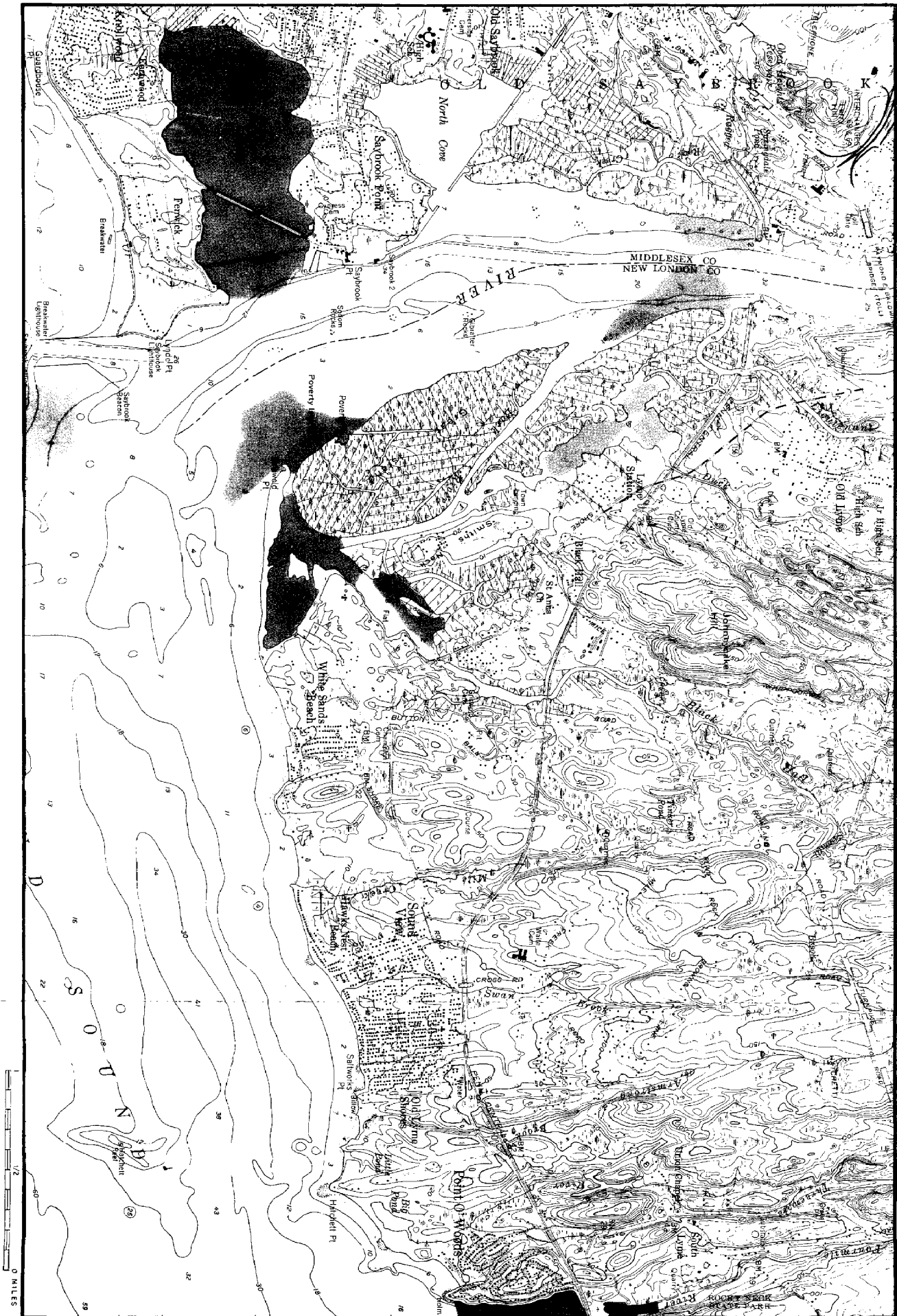




FIGURE F-2
COASTAL RESOURCES

LEGEND

COASTAL LAND RESOURCES

- BE COASTAL BLUFFS AND ESCARPMENTS: These are naturally eroding nearshore lands noted for their dynamic escarpments or sea cliffs. These seaward facing cliffs, etched into coastal headlands of unconsolidated boulder to stony soil or sand and gravel, are steep and mantled with a sparse cover mostly of herbaceous plants and, to a lesser extent shrubs.
- mBE modified COASTAL BLUFFS AND ESCARPMENTS: This category of bluffs and escarpments is, in fact, the most prevalent condition along the coast. In this instance, to mitigate wave erosion and subsequent slope failure in order to preserve and protect structures near the summit of these slopes, stabilization structures such as seawalls and revetments have been constructed on the slope.
- BS BEACH SYSTEM (BEACHES AND DUNES): In all instances, this system is comprised of a beach and in certain instances, especially on the class of beaches termed barrier beaches, dune ridges or dunes and sand flats. The beach is characterized by gently seaward sloping deposits of sand, gravel or cobble. Its landward extent is coincidental to the location where a change in physical composition or physiographic form (i.e. bluffs, escarpments, dune ridges) occurs.
- Associated with certain beach systems are the windblow landforms embracing familiar forms as dunes or dune ridges and sandflats. They occupy a position landward of the beach, consisting of dry sands and support a coastal grassland of beach grass (*Ammophila breviligulata*).
- mBS modified BEACH SYSTEM: This category denotes those beach systems in which an erosion mitigation structure, generally a seawall, has been erected at the interface of the beach and dune ridge in order to protect structures on the dune ridge and sand flat.
-  COASTAL HAZARD AREAS: These are nearshore lands subjected to coastal flooding and concurrent erosion incidental to normal or extreme coastal events upward to the 100 year event as identified by HUD-FIA mapping. This zone embodies beach systems, rocky shorefront, bluffs and escarpments, tidal wetlands, occasionally freshwater wetlands and upland landforms of low elevation, principally gently sloping plains of till and outwash and the lower slopes of upland hills.
- FW FRESHWATER WETLANDS: This category conforms to the definitions in Section 22a-36 of the Connecticut General Statutes which define wetland to mean "land, including submerged land, not regulated pursuant to Sections 22a-28 to 22a-35 (of the C.G.S.), inclusive, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial and floodplain by the National Cooperative Soils Survey, as amended from time to time, of the Soil Conservation Service of the United States Department of Agriculture."
- I ISLANDS: A land mass of bedrock or till that is surrounded entirely by coastal waters.
-  SHORELANDS: Shoreland elevations exceed the still water flood level of the 100 year event, thereby precluding coastal flooding. Development activities on shorelands, not exceeding 1,000 feet from the shoreline, potentially can be accompanied by direct and significant impacts on coastal waters. These lands are replete with a variety of upland landforms including drumlins, rocky lands, glacially rounded hills and plains.
- UF URBAN SHOREFRONTS: Includes those shoreline areas which have been so highly engineered and managed for commercial, industrial or institutional purposes that their natural physiographic features or systems have been largely obscured and functionally impaired.
- W OPEN WATER: This mapping unit corresponds to areas of open water such as, but not limited to, lakes and ponds.

INTERTIDAL RESOURCES

- TW REGULATED TIDAL WETLANDS: These geographic areas correspond to the official state designated and regulated tidal wetlands as defined by CGS Section 22a-29 that are located within the coastal boundary. The areas depicted on this map shall in no way supersede the official state maps at the scale of 1:2,400, which provide more precise boundaries.
- nTW non-designated TIDAL WETLANDS: Due to certain anomalous conditions such as the absence of a direct tidal connection to coastal waters or errant vegetation, these areas were not mapped during the initial phase of tidal wetland mapping for the state tidal wetland program. However, until such time that the tidal wetland remapping program is completed, these areas of formerly unrecognized tidal wetland, shall be denoted as nTW. Currently, these are regulated under the auspices of the inland wetlands program as administered by coastal municipalities or the state.
- INTERTIDAL FLATS: These are level to gently sloping areas subjected to alternating periods of tidal inundation and dessication incidental to exposure to the atmosphere. Their sediments range from mud to sand.

COASTAL WATER RESOURCES

- EM ESTUARINE EMBAYMENTS: These are protected coastal bodies of water with an open connection to the sea in which saline sea water is measurably diluted by freshwater and include tidal rivers, bays, lagoons and coves.
- NEARSHORE WATERS NEARSHORE WATERS: Those waters and their substrates lying between mean low water and a depth approximated by the 10 meter bathymetric contour.
- OFFSHORE WATERS OFFSHORE WATERS: Those waters and their substrates lying seaward of a depth approximated by the 10 meter bathymetric contour.

* These waters belong to the category watercourses, which also are regulated pursuant to CGS Section 22a-36. Watercourses such as rivers, streams, brooks, and waterways, are not specifically portrayed on this map because of the size limitations imposed by the scale. However, they are generally apparent on topographic maps at the scale of 1:24,000 and are nevertheless managed in accordance with the Inland Wetlands Act.

** All land areas unshaded with the exception of any unshaded segment of tidal wetland constitute a shoreland area. Excluded are all inland and coastal waters.

The term "modified" preceding beach system or bluff and escarpment indicates the presence of a seawall and the fact that certain guidelines developed for average, natural conditions may no longer be relevant.

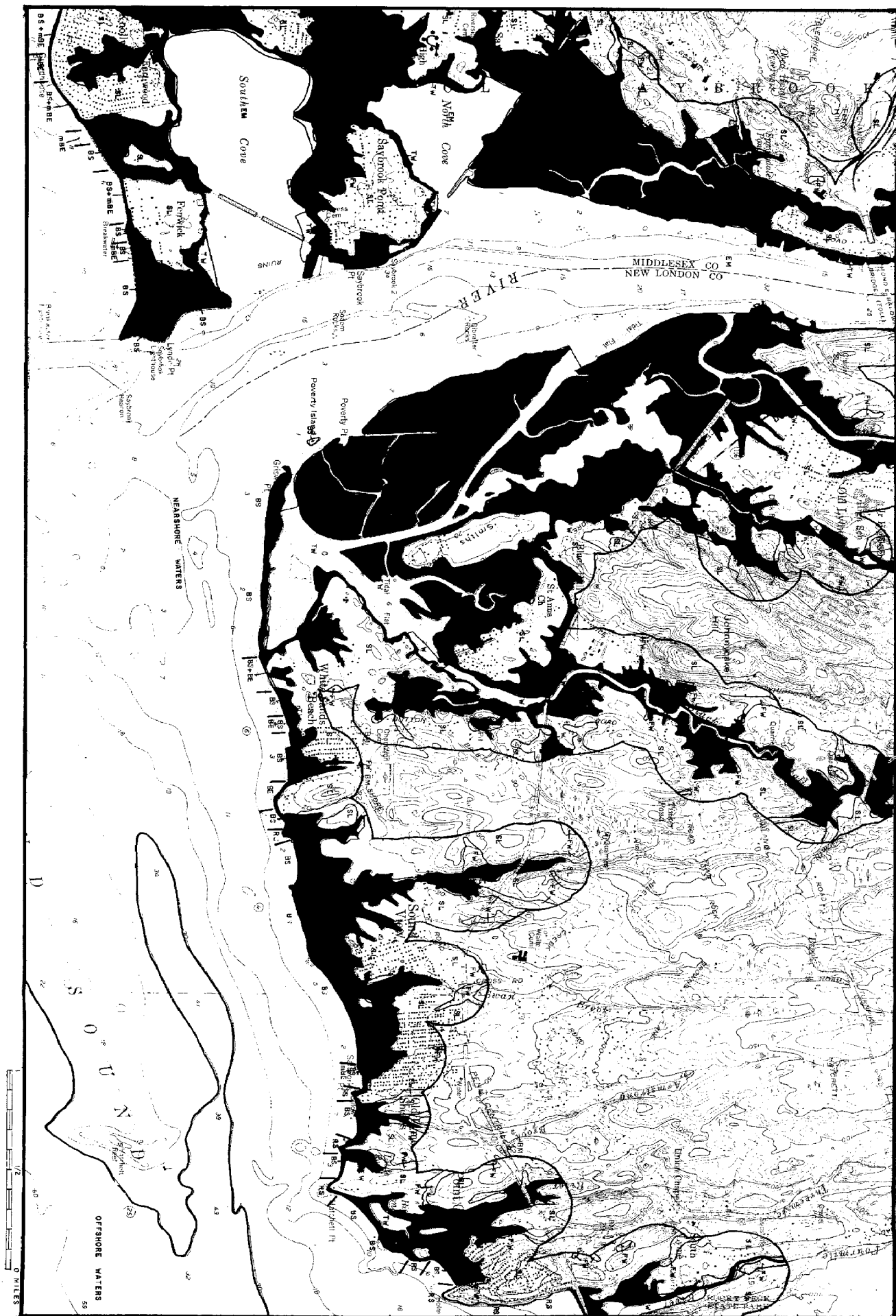


FIGURE F-3 REGULATED TIDAL WETLANDS

LEGEND



REGULATED TIDAL WETLANDS: These geographic areas are regulated by the Connecticut Department of Environmental Protection pursuant to Sections 22a-28 to 22a-35 of the Connecticut General Statutes which defines tidal wetlands as follows:

"Areas which border on or lie beneath tidal waters, such as but not limited to banks, bogs, salt marsh, swamps, meadows, flats or the low lands subjected to tidal action, including those areas formerly connected to tidal waters, and whose surface is at or below an elevation of one foot above local extreme high water and upon which may grow or be capable of growing some, but not all of the following plants." (Refer to list in CGS Section 22a-29)

Source: State of Connecticut Tidal Wetland Maps at a scale of 1:2,400. Water Resources, Department of Environmental Protection, Hartford, Connecticut.

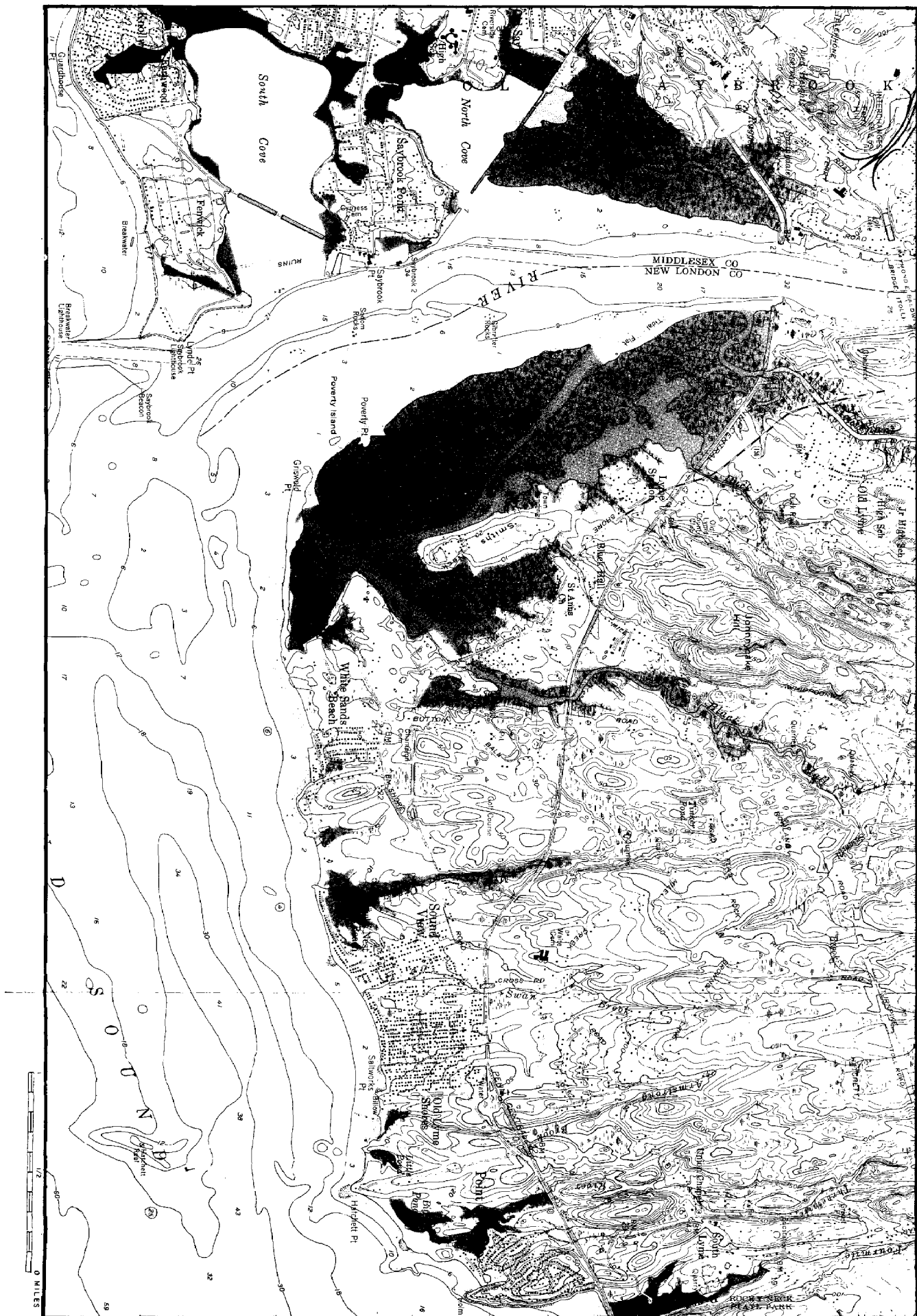


FIGURE F-4
SHELLFISH CONCENTRATION AREAS

LEGEND



SHELLFISH CONCENTRATION AREAS: Included here are geographic areas believed to support and produce significant concentration of shellfish that are of commercial and recreational value. These areas support concentrated populations of one or more of the following shellfish: hard clams (*Mercenaria mercenaria*), soft clams (*Mya arenaria*), bay scallops (*Aequipecten irradians*), and oysters (*Crassostrea virginica*). Excluded here are the historically productive but presently inactive shellfish areas.

Source: U.S. Department of the Interior. Federal Water Pollution Control Administration. 1970. State of Connecticut Shellfish Atlas. Northeast Region, New England Basins Office, Massachusetts.

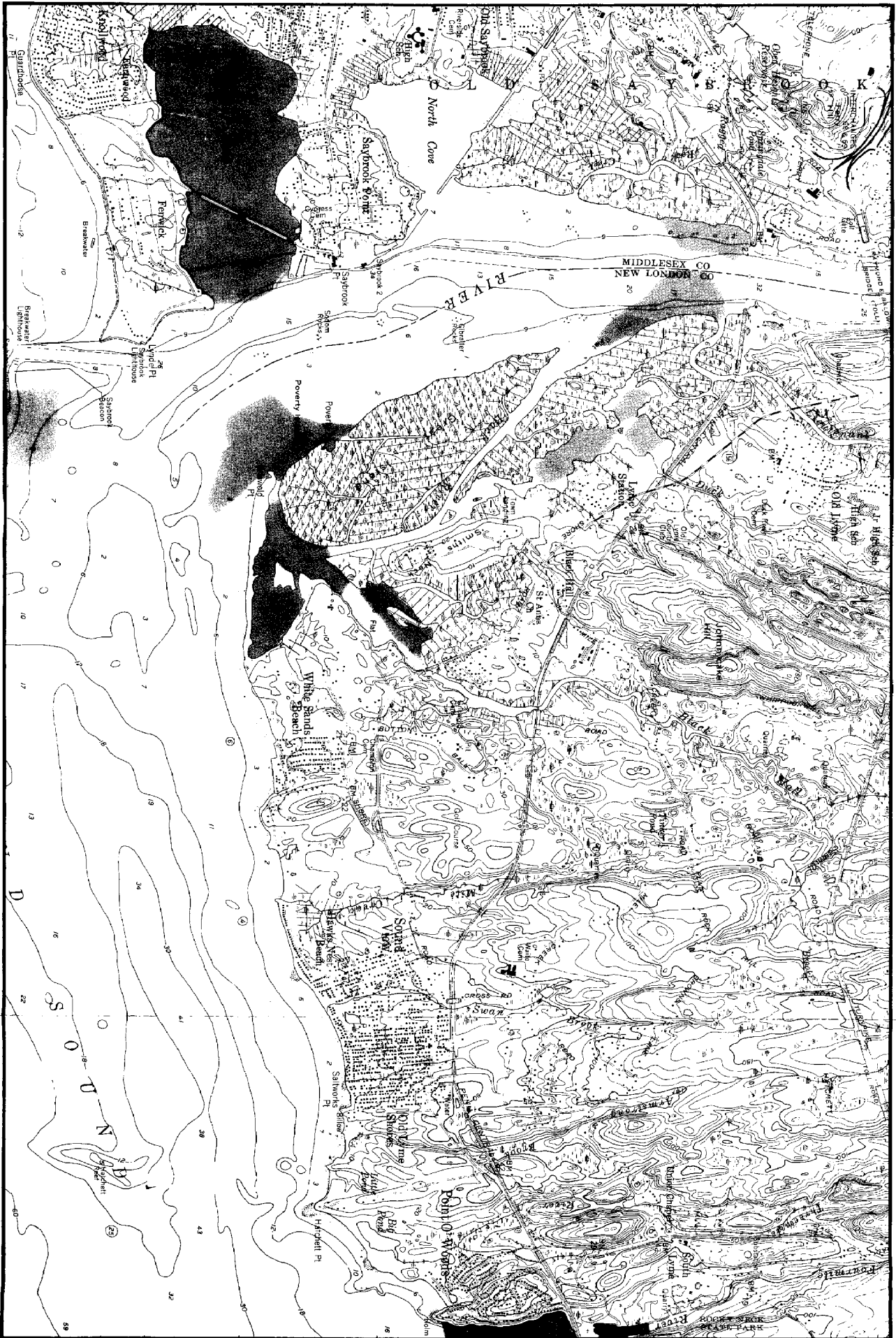


FIGURE F-5

SHORELINE CHANGE MAP

LEGEND

The pupose of this map is to depict historical changes in the configuration of the state's 278 miles of Long Island Sound fronting coast. The map is presented at a scale of approximately 1:24,000 so that it may be compared to current shorelines shown on U.S. Geological Survey topographic maps.

SHORELINE AND 12 FOOT DEPTH

LEGEND

DATE	SHORELINE	12 FOOT DEPTH
1949	—————	—————
1937 ——— .. ——— ..
1883	-----	xx ——— xx ——— xx
1851	o-o-o-o-o-o-o-o	oo ——— oo ——— oo
1838	•-•-•-•-•-•-•-•	.. ——— .. ——— ..

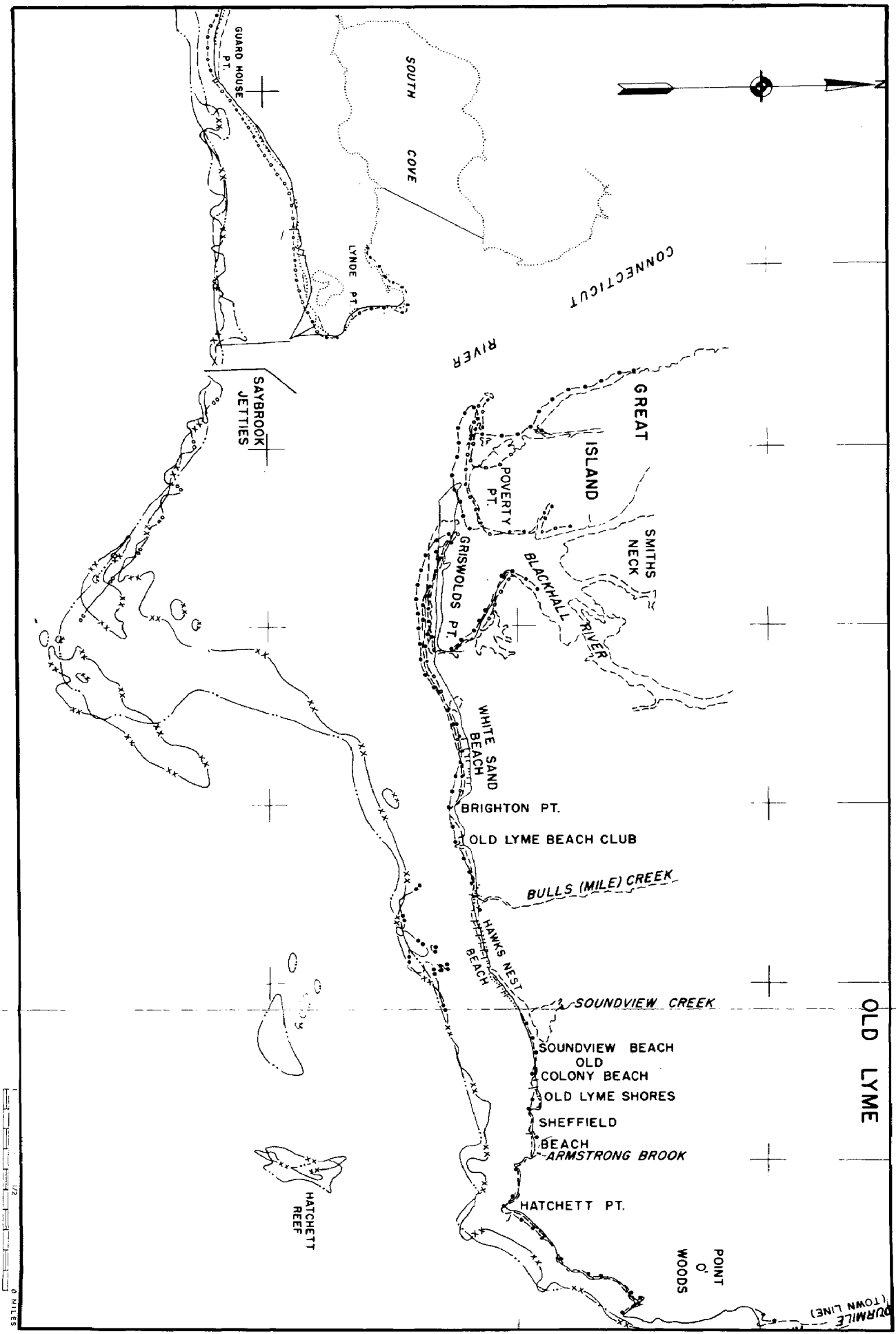
NOTES

Shorelines prior to 1949 and offshore contours traced from drawings prepared by the Beach Erosion Board, Washington, D.C., from U.S.C. & G.S. Data.

Depths are referred to the plane of Mean Low Water.

The 1949 shoreline is the Mean High Water line located for this study.

*Source: Beach Erosion Control Report—
Cooperative Study of Connecticut, U. S. Army
Corps of Engineers, 1952*



OLD LYME

1/2 MILE (TOWN LINE)

FIGURE F-6

LITTORAL SEDIMENT SYSTEMS AND SURFICAL GEOLOGY

LEGEND

Postglacial		Artificial fill
		Swamp sediments <i>Silt, sand, and clay mixed with organic matter in poorly drained areas, both fresh-water and tidal.</i>
		Wind-blown sand <i>Narrow, thin patches of sand adjacent to beaches.</i>
		Beach sand and gravel <i>Includes some wind-blown sand.</i>
		Alluvium <i>Sand, silt, and gravel occurring as thin covers on some valley floors. Locally includes colluvium and bodies of clay.</i>
		Outwash sediments <i>Sand and gravel, mainly with cut-and-fill stratification, grading up-valley into ice-contact stratified drift.</i>
Glacial		Ice-contact stratified drift <i>Sand, gravel, silt, and clay, in many places poorly sorted, with abrupt changes in grain size, and deformed. Deposited in streams and local ephemeral lakes in close relation to melting glacier ice. Many bodies grade into outwash sediments.</i>
		End moraine <i>Ridges and mounds of till and stratified drift, elongate NE-SW. Concentrations of boulders locally conspicuous.</i>
		Till <i>Compact, nonsorted sediment deposited by glacier ice. Includes small bodies of stratified sediment.</i>



Bedrock

Individual exposures in dark color; light color denotes areas with complex patterns of bare rock and rock thinly covered with residuum, small patches of till, and scattered slide-rock.



Geologic contact

Dashed where located only approximately.



Erratic boulder 10 feet or more in greatest diameter.

Letters denote lithology:

Gr: granitic rock. Gn: gneissic rock.

pgm: pegmatite;

No letter: not identified.



Glacial striations and/or grooves.



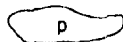
Pit (operating) in sand and gravel or till.

Hachures denote pit faces.



Pit (abandoned) in sand and gravel or till.

Hachures denote pit faces.



Artificial pond not shown on topographic base map.

Dominant direction of along-shore sediment transport which is induced by waves and tidal currents.

Approximate sediment cell boundaries (areas where directions of alongshore transport converge and diverge).

area of significant erosion

Denotes an area where erosion presents a significant problem because the rate of erosion, considered in conjunction with economic, industrial, recreational, agricultural, navigational, demographic, environmental, and other relevant factors indicate that action to mitigate such erosion may be justified.

Sources: Surficial geology reproduced from U.S.G.S. and Connecticut Geology and Natural History Survey maps.



APPENDIX G
NATIONAL INTEREST AND
FACILITIES JUSTIFICATION

Appendix G

THE NATIONAL INTEREST - JUSTIFICATION FOR CHOICES

Introduction

After compiling and analyzing responses from contact sources on the national interest component, the Connecticut Coastal Area Management Program was required to make decisions as to those facilities and resources in which there is a national interest for Connecticut. Section 3(14) of the proposed amendments to the Coastal Area Management Act lists those facilities and resource uses. The choices made by CAM reflect a thorough examination of responses received from state and federal agencies interested in coastal management and from interest groups of a state, regional and national basis. Additionally, the program reviewed statewide resource maps and detailed maps of existing land use in the coastal area in making its national interest "choices." This information was reviewed together with the coastal goals and policies for Connecticut Coastal Area Management, as approved by its Advisory Board.

Following is a list of facilities and resources in Connecticut's coastal area that are in the national interest: 1) adequate protection of tidal wetlands and related estuarine resources, 2) restoration and enhancement of Connecticut's shellfish industry, 3) restoration, preservation and enhancement of the state's recreational and commercial fisheries, including anadromous species, 4) water pollution control measures and facilities consistent with the requirements of the Federal Clean Water Act, as amended, 5) air pollution control measures and facilities consistent with the requirements of the Federal Clean Air Act, as amended, 6) continued operation of existing federally funded, dredged, and maintained navigation channels and basins, 7) energy facilities serving statewide and interstate markets, including electric generation facilities serving statewide and interstate markets, including electric generating facilities and facilities for the storage, receiving or processing of petroleum products and other fuels, 8) improvements to the existing interstate rail, highway and waterborne transportation system, 9) provision of adequate state or federally owned marine related recreational facilities, including natural areas and wildlife sanctuaries, and 10) essential military, navigational, resource management and research facilities.

The choices made reflect the balancing of many interests, some conflicting, in Connecticut's coastal area. Facilities that would increase developmental activity must be balanced against potential harm to valuable resources. Facilities that arguably are in the national interest must be balanced against other interests in coastal area management, particularly if that facility is not water dependent. Ultimately, the process of deciding

what facilities and resource uses are in the national interest for Connecticut involve a trading-off of various interests in an attempt to actively pursue and encourage those uses most beneficial to the coastal area and the state of Connecticut as a whole.

Following is an individual discussion of each choice and the reasons for defining these particular interests in terms of "national interest."

1. Adequate Protection of Tidal Wetlands.

Protection of the state's tidal wetlands is in the national interest for Connecticut coastal management particularly in view of the substantial amount of destruction this resource has faced. It is estimated that only about one-half of the tidal wetlands Connecticut once had are in existence at the moment (about 15,000 acres). Wetlands play a significant role in the coastal ecosystem as they remove impurities caused by pollution, serve as a buffer from storms, and provide spawning, nursery and feeding areas for fish and wildlife. Two-thirds of the fish and shellfish population spend part of their life cycles in tidal wetlands.

Connecticut Coastal Area Management recognizes the national interest in tidal wetlands and the urgent need to protect this biologically valuable resource from further destruction. CAM's general policy on tidal wetlands is "to preserve tidal wetlands and to prevent the despoilation and destruction thereof." (From the Connecticut Tidal Wetlands Statute, CGS Section 22a-28.) The specific policy is "to preserve tidal wetlands and to prevent the despoilation and destruction thereof in order to maintain their vital functions as a source of high biological productivity, a habitat and nesting, feeding and refuge area for shore birds, a habitat for shellfish, a nursery ground for larval and juvenile forms of marine organisms, a buffer for storm and wave energy, to encourage the rehabilitation and restoration of degraded tidal wetlands; and where feasible and environmentally acceptable, to encourage the creation of wetlands for the purpose of shellfish and finfish management, habitat creation and dredge spoil disposal." (See Volume I, Section IV, "Goals and Policies")

Many responses to CAM's national interest questionnaire identified tidal wetlands protection and enhancement as in the national interest for Connecticut. The State Council on Environmental Quality cited the importance of tidal wetlands as a habitat for endangered species. Other organizations citing tidal wetlands were the Connecticut Forest and Park Association and the Nature Conservancy.

Existing legal authorities that can enforce the policy on tidal wetlands are the Tidal Wetlands Act (CGS Sections 22a-28 to 22a-35), Coastal Structures (Section 25-7d), Dredging (Sec. 25-11), Water Pollution (Sections 25-54 to 25-63), Local Planning

and Zoning Authorities (C.G.S. Sections 8-1 to 8-30a), and for unmapped tidal wetlands the Inland Wetlands Act (C.G.S. Section 22a-36 to 45).

2. Restoration and Enhancement of Connecticut's Shellfish Industry

Historically, Connecticut has been a leader in the shellfish industry. Many may recall the heyday of oystering in the state, particularly in the southwestern portion. Today however, commercial oystering is limited to a few active companies. In the 1800's, oystering was carried out by a fleet of over 450 vessels but by 1970 only 30 vessels were still active in Long Island Sound. Connecticut leases only about one-quarter of the shellfish beds it once leased. A major and disturbing reason for the decline of this industry was and continues to be severe pollution of the coastal waters. Numerous shellfish beds have felt the adverse impact of pollution, being closed for health reasons.

Because of these factors, Connecticut CAM views the restoration and enhancement of Connecticut's shellfish industry as a critical national interest concern. A specific policy of the program is "to encourage improved aquaculture techniques in order to revitalize and increase the number and extent of productive shellfish beds and to restore and maintain healthy and productive bottom conditions" (See Vol. I, Sec. IV, "Goals and Policies"). Existing legal authorities for the enforcement of the policy are State Shellfish Laws (Chapter 491 of the C.G.S.) and Local Shellfish Laws (C.G.S. Chapter 492).

The national interest in this resource was cited by a number of agencies and interest groups. For example, that State Department of Agriculture, Aquaculture Division, stated that the shellfish industry and the lands required to produce the necessary seed to insure a continuing ability to grow oysters and clams is in the national interest. The National Marine Fisheries Service of the U.S. Department of Commerce identified the protection of living aquatic resources and their habitat in coastal waters, marshes and shoal areas as in the national interest.

3. Restoration, preservation and enhancement of the state's recreational and commercial fisheries, including anadromous species.

Closely related to the national interest identified in the previous section is the interest in recreational and commercial fisheries. The Connecticut Coastal Area Management Program will pursue the policy of managing the state's fisheries in order to promote the economic benefits of commercial and recreational fishing, enhance recreational fishing opportunities, optimize the yield of all species, prevent the depletion or extinction of indigenous species, maintain and enhance the productivity of natural estuarine resources and preserve healthy fisheries resources for future generations.

Commercial fishing, as with shellfishing activities, was once extensive in Long Island Sound but has steadily declined in recent years, particularly since the 1950's. The factors contributing to

the decline of the shellfish industry, primarily the pollution problems, are also responsible for the gradual decrease in recreational and commercial fishing opportunities.

The federal government through the National Marine Fisheries Service of the Department of Commerce regards protection of fisheries as in the national interest. Their response stated, "permitted uses of the coastal area should be designed to be compatible with, and potentially protective of, existing fishery resources and associated habitats such as wetlands, nursery and spawning grounds, commercial and recreational fishery grounds. In this sense, the national interest should be equivalent to Connecticut's for the purpose of ensuring environmental integrity."

Existing legal authorities available to enforce CAM's fisheries policy are the State Fisheries Management Laws (C.G.S. Chapter 490, parts I, II, VII, VIII and IX).

4. Water Pollution Control Measures and Facilities Consistent with the Requirements of the Federal Clean Water Act, as amended.

An examination of the shellfish and fish industry in Connecticut has served to highlight the detrimental impact of water pollution. This form of pollution is no longer solely a concern for the "ecology-conscious" but has become a problem posing serious problems for all living things.

The federal Coastal Zone Management Act of 1972 recognized the importance of effective water pollution control measures in each state's development of a coastal management program. The Act states in Section 307(f), "notwithstanding any other provision of this title, nothing in this title shall in any way affect any requirement (1) established by the Federal Water Pollution Control Act, as amended...or (2) established by the Federal Government or by any state or local government pursuant to such Acts." This section further stipulates that "such requirements shall be incorporated in any program developed pursuant to this title and shall be the water pollution control requirements applicable to such programs."

The Connecticut Coastal Area Management Program, by including the requirements of the Federal Water Pollution Control Act within its program, insures that effective water pollution control measures and facilities are in the national interest. The program will fully comply with the requirements of the federal Act which is reflected in CAM's general policy on water quality "to improve the quality of the coastal waters to a level consistent with Connecticut water quality standards and the requirements of the Federal Clean Water Act" (see Volume I, Section IV, "Goals and Policies").

CAM's specific policy on this subject is interrelated with other resource uses and facilities determined to be in the national interest: "to restore or maintain the coastal waters of the state to a quality

consistent with its use for the perpetuation and propagation of fish, shellfish, and wildlife including breeding, feeding and nursery grounds, and with its use for recreation in and on the water, and specifically to attain at least a quality consistent with the standards for class SB." (See Volume I, Section IV, "Goals and Policies").

Pursuing the requirements of the Federal Water Pollution Control Act vigorously in Connecticut will promote the improvement, protection and enhancement of the coast's many resources particularly those identified as resources in the national interest. Existing legal authorities (in addition to federal law) to enforce these policies are the state Water Pollution Control Laws (C.G.S. Sections 25-54 to 25-68a) and Municipal Sewerage Systems Laws (C.G.S. Sections 7-245 to 7-273a).

As the Connecticut coast continues to face development pressures, particularly in the area of energy facilities and production, meeting strict clean water standards becomes all the more crucial for Connecticut and the broader national interest.

5. Air Pollution Control Measures and Facilities Consistent with the Requirements of the Federal Clean Air Act, As Amended.

The inclusion of air pollution control measures as a national interest concern again stems from federal legislation -- the Clean Air Act. The federal Coastal Zone Management Act states in Section 307(f), "notwithstanding any other provision of this title, nothing in this title shall in any way affect any requirement (1) establishing the...Clean Air Act, as amended, or (2) established by the Federal Government or by any state or local government pursuant to such Act. Such requirements shall be incorporated in any program developed pursuant to this title and shall be the...air pollution control requirements applicable to such program."

The Connecticut CAM program has adopted a specific policy to meet this federal requirement; "to achieve, maintain, or preserve, a level of air quality which is healthy, visually unobstructive, and consistent with economic and urban development needs, and which minimizes property damage."

Existing legal authorities available to enforce the policy on air quality, aside from the federal act are the Connecticut Air Pollution Control Laws (C.G.S. Sections 19-505 to 19-522).

The national interest in air quality control also impacts on the successful protection and enhancement of other natural resources in the coastal area, some of which are themselves considered to be of national importance. Air quality standards also impact upon facility development in the coastal area, the resolution of which involves determination as to whether the facilities can be sited outside the coastal boundary and whether the facility meets federal and state environmental, health or safety standards.

6) Continued operation of existing federally funded, dredged and maintained navigation channels and basins.

The Connecticut Coastal Area Management Program recognizes the particular national interest in the dredging and maintenance of existing navigation channels and basins given the substantial military presence in the state, the importance of the Connecticut coast as a center for commercial activity, and the frequent use of recreational harbors. The southeastern portion of the coast is the site of military facilities and industries involved in the construction of naval vessels. These facilities, a subject of the national interest themselves (see #10 - "Essential Military, Navigational, resource management and research facilities") depend on well-maintained navigation channels.

Numerous harbors are presently in the state attempting to cope with the growing demand for recreational boating. Recreational facilities have also been identified as in the national interest for Connecticut CAM (see #9 "Provision for adequate state or federally owned marine related recreational facilities, including natural areas and wildlife sanctuaries"). The success of such facilities depends on adequately dredged and maintained navigation channels and basins.

The U.S. Army Corps of Engineers is mandated by Congress to maintain navigability of Connecticut's harbors, ports and channels. The disposal of dredged materials, known as "spoil," has raised serious questions to both short and long term effects on the environment. Prior to the Tidal Wetlands Statute (C.G.S. Section 22a-28), Connecticut disposed of some of the spoil by dumping it on tidal wetlands for reclamation purposes. This statute wisely stopped this practice. Presently, Connecticut generally disposes of it on land or in the Sound, but suitable land disposal sites are becoming scarce. The impacts from this activity are not fully known although the short term impacts appear to be minimal according to a state Department of Environmental Protection report. ("Dredging and Dredged Spoil Disposal in Long Island Sound: A Discussion Paper", 1975.)

This report also stated, "if deep water access in industrial reports, recreational harbors, slips and marinas in Connecticut is to be maintained, a "solution" to the dredged materials disposal problem must be found." The CAM policy on coastal dredging reflects this concern. The specific policy is "to encourage the maintenance and enhancement (i.e. minor alterations such as deepening or widening) of existing public navigation channels, basins and anchorages and to discourage the dredging of new or expanded public navigation channels, basins and anchorages." (See Vol. I, Sec. IV, "Goals and Policies"). Existing legal authority for the enforcement of this policy are the Dredging Statutes (CGS Sections 25-10 to 25-18) and implementing programs are DEP Water Resources (permitting activities), and the U.S. Army Corps of Engineers whose dredging and maintenance

activities must be consistent with Connecticut coastal area management.

The New Haven Terminal responded to the national interest questionnaire by emphasizing the importance of maintaining navigational channels for commercial activity. It felt that New Haven Harbor is in the national interest because it can handle deep draft ocean going vessels. Additionally, this interested party stated "because of the limited amount of land adjacent to deep water marine terminal facilities should be given priority in New Haven harbor."

7) Energy facilities serving statewide and interstate markets, including electric generating facilities and facilities for the storage, receiving or processing of petroleum products and other fuels.

Most of the controversy surrounding the interpretation of the national interest section has arisen in regard to energy facility siting. Some organizations, particularly the American Petroleum Institute have read Section 306(c)(8) as requiring an affirmative commitment to the siting of energy facilities in the coastal area. Energy interests stress the language of Section 306(c)(8), which specifically mentions "energy facilities" in making their argument. However, a recent federal court decision* involving a challenge to the California coastal plan said that an affirmative commitment to energy facility siting is not required under the federal Coastal Zone Management Act. The national interest in energy is not to be placed above other national interests.

It is not to be denied however, that energy facility siting is an important component of the national interest procedure and must receive adequate consideration in a coastal management program. In the "findings" section of the CZMA, the Congress finds that..."the national objective of attaining a greater degree of energy self-sufficiency would be advanced by providing federal financial assistance to meet state and local needs resulting from new or expanded energy activity in or affecting the coastal zone." (Section 302(i)) Another indication of the importance of energy activity in a coastal management plan is illustrated by the 1976 Amendments to the federal act resulting in Section 308 - "Coastal Energy Impact Program." The amendments involve provisions for "financial assistance to meet the needs of coastal states and local governments in such states resulting from specified activities involving energy development." (Section 308(a)(1))

The Connecticut Coastal Area Management Program recognizes the importance of energy facilities in terms of the national interest. The general policy of CAM is "to regulate construction of electric generating facilities by balancing the need for such facilities with the protection of the environment,

*American Petroleum Institute v. Knecht, (C.D. Cal), August 31, 1978.

by requiring a thorough investigation of adverse impacts on the environment and by requiring a determination that the need for the facility outweighs adverse impacts." (See Volume I, Section IV, "Goals and Policies").

Two specific policies on energy facility siting and construction in Connecticut's coastal area are as follows:

- 1) To provide for the "balancing of the need for adequate and reliable" electric power generation at the lowest reasonable cost to consumers "with the need to protect the environment and ecology of the state and to minimize damage to scenic, historic and recreational values; to provide environmental quality standards and criteria for the location, design, construction and operation of (electric generation facilities) at least as stringent as federal environmental quality standards and criteria" (CGS Section 16-59g).
- 2) Prior to allowing construction of electric generating facilities: to require the determination of "the nature of the probable environmental impact, including a specification of every significant adverse effect, whether alone or cumulatively with other effects, on, and conflict with the policies of the state concerning the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forests and parks, air and water purity and fish and wildlife;" and to require an explanation of "why any adverse environmental impacts or any conflicts with state environmental policies are not sufficient reason to deny" construction (CGS Section 16-50p). (See Volume I, Section IV, "Goals and Policies").

These policies will be enforced by the State Power Facility Evaluation Council - licensing of power facilities.

A significant number of questionnaire responses identified energy facilities as in the national interest for Connecticut coastal management. For example, the U.S. Department of Energy stressed the need to make energy self-sufficiency a basic policy objective. The agency provided an extensive list of those types of facilities it considered to be in the national interest including facilities utilized for importing or exporting energy resources in international commerce, facilities for the transportation or marketing of energy resources in interstate commerce, facilities receiving special federal financial support for research and development, and facilities owned and/or operated by the federal government.

The Department of Energy also stated that it "does not conclude that energy projects must be permitted in the coastal zone simply because they are of larger than local nature." A management program must have "a balancing of the national interest in energy self-sufficiency with state and local interests involving social, environmental and economic factors."

The federal Energy Regulatory Commission believes that a balancing of conflicts between energy facilities and other interests is not for federal agencies to determine. Rather, it is a problem "the state must decide on the basis of all national interest considerations along its coast."

The Power Facility Evaluation Council in Connecticut sited the national significance of nuclear facilities in Connecticut. They also made the observation that while generating facilities aren't necessarily coastal dependent, they require large quantities of water for cooling.

Connecticut Coastal Area Management considers energy facilities serving statewide and interstate markets to be in the national interest, but an interest on a par with other resource uses and facilities of national importance.

8) Improvements to the existing interstate rail, highway and waterborne transportation system.

Connecticut CAM considers the upgrading of existing elements of the transportation system to be in the national interest. Much of the state's interstate highway network as well as rail corridor are located in or near the coastal boundary. Long Island Sound and Connecticut ports are the scene of extensive commercial activity. The transportation system has a direct relationship to future development in the coastal boundary as well as to health, access, and environmental quality concerns.

Connecticut CAM has adopted a general transportation policy - "to encourage the improvement, upgrading and rehabilitation of existing transportation facilities and systems as the primary means of providing for transportation needs in the coastal area." Existing legal authorities for its enforcement are the State Transportation Planning Law (CGS Section 13b-15) and the Federal Urban Mass Transportation Act of 1973 (see Volume I, Section IV, "Goals and Policies").

The general policy on coastal railroads is "to require that rail corridor improvements prevent adverse impacts on coastal resources, coastal access, recreational opportunities and the scenic nature of the coast." Enforcement authorities are the Coastal Structures Law (CGS Section 25-7b), Dredging Laws (CGS Section 25-10 to 25-18); Tidal Wetlands Laws (CGS Sections 22a-28 to 22a-35) and the Federal CZMA (see Volume I, Section IV, "Goals and Policies").

Finally, the Coastal Highway policy requires that "coastal highways and highway improvement be designed and constructed so as to minimize negative impacts on coastal resources; to give full consideration to mass transportation alternatives; and to enhance coastal access and recreational opportunities."

Existing legal authorities for enforcement are:

- State Transportation Planning Law (CGS Sec. 13b-15)
- Coastal Structures (CGS Sec. 25-7b)
- Dredging (CGS Sec. 25-10 to 25-18)
- Tidal Wetlands (CGS Sec. 22a-28 to 22a-35)
- Air Pollution (CGS Sec. 19-505 to 19-522)
- Municipal Highway Authorities (CGS Sec. 13a-8 to 13a-11 and 13a-61 to 13a-63).

(see Volume I, Section VI, "Authorities"):

This national interest choice generated responses from a variety of agencies and interest groups. The Greater Bridgeport Regional Planning Agency listed the Bridgeport harbor and associated dock and terminal facilities, rail lines and interstate routes as in the national interest. The Connecticut Chapter of the Sierra Club cited transportation, particularly the restoration of rails along existing rights of way on the shore as in the national interest. However, it did feel that construction of new interstate highways in the coastal area was not in the national interest.

Northeast Utilities was concerned about the adequacy of transportation facilities for fuels needed for generating facilities and transportation by water. Brookhaven National Laboratory considered transportation a high priority interest but also acknowledged that it must be balanced against the national interests in environmental legislation.

9) Provision for adequate state or federally owned marine related recreational facilities, including natural areas and wildlife sanctuaries.

Long Island Sound is an important natural and recreational resource serving an interstate area. The number of recreational boats in use continues to increase as does the construction of marinas and clubs. Additionally, the Sound is "home" to an avid contingent of recreational fishermen.

But when many of us consider recreational opportunities on the coast, the "beach" comes to mind. However, the state of Connecticut is not well equipped to handle an increasing demand for beach area for recreational use. The state has 72 miles of beach along

the coast, but only six are state owned. The state beachfront must serve a large number of individuals each year resulting in a taxing of its capacity. Municipally or privately owned beachfront, with varying degrees of restrictions found, make up most of the remaining beach area in this state. This limits recreational opportunities for the state as a whole in the coastal area.

The Connecticut Coastal Area Management Program considers recreational facilities to be in the national interest including natural areas and wildlife sanctuaries. As a general policy, Connecticut CAM seeks "to encourage public access to the waters of Long Island Sound and to encourage recreational opportunities within the coastal area that are consistent with sound resource conservation procedures and constitutionally protected rights of private property owners." (See P.A. 78-152) The specific policy is "to make effective use of state owned coastal recreational facilities in order to expand coastal recreational opportunities." The existing legal authority can be found in the State Recreation Laws (CGS Chapter 477, and 22a-21 to 22a-27) (See Volume I, Section IV, "Goals and Policies").

The Connecticut Marine Trades Association noted the growing demand for marine related recreational facilities. "Coastal dependent facilities that make recreational use possible are in the national interest." The Connecticut Chapter of the Sierra Club cited the national interest in the preservation of coastal land for recreational use. The Nature Conservancy found critical natural and wildlife areas to be in the national interest as did the Connecticut Forest and Park Association. Finally, the U.S. Department of the Interior, Heritage Conservation and Recreation Service (formerly the Bureau of Outdoor Recreation) is "concerned about adequate access to the coast for recreational purposes for minorities, the handicapped and the underprivileged."

10) Essential Military, Navigational, Resource Management and Research Facilities.

The active presence of the military in the Connecticut coastal area was outlined in section 6 concerning dredging and navigation channels. Obviously, military facilities are in the national interest because of their defense and security importance. Many commentators on the questionnaire listed military facilities as in the national interest. For example, the United States Department of the Navy, the major military unit on the coast stated, "all Navy facilities are in the national interest as each contributes to the national defense....Conflicts, if any, will be minimal since the Navy will be consistent with all coastal zone considerations to the maximum extent practicable and the requirements of NEPA will be met." Siting criteria considered by the Navy are nondegradation of the environment and attention to air and water pollution.

Another division of the armed forces, the U.S. Department of the Air Force, commented that national defense installations are in the national interest. It is Air Force policy to "plan, initiate and carry out environmental programs and actions in a manner to avoid adverse effects on the quality of the human environment, insofar as practicable, and with appropriate consideration of assigned missions and of economic and technical factors."

Brookhaven National Laboratory, National Center for Analysis of Energy Systems (Long Island), regards military facilities as a high priority but recognized the balancing process that must take place with national interests identified in environmental legislation.

State and regional agencies citing the national interest in military facilities were the Office of Policy and Management, the Valley Regional Planning Authority and the Southeastern Connecticut Regional Planning Agency. Electric Boat, a major defense contractor in the southeastern coastal area, must be viewed in conjunction with the national interest in military facilities.

Closely related to the national interest in military facilities, as discussed earlier, is the maintenance of adequate navigation channels. The construction of military equipment, specifically naval vessels, is a major activity in the state's coastal area. Adequate access to the Sound through properly maintained navigation channels is in the national interest (see the policy on Coastal Dredging - Sec.6, p.6-6).

Management of the coastal area's resources has been determined to be in the national interest. The goal of the program in regard to "Coastal Land and Water Resources" is "to maintain the intrinsic form, function and interrelationship of Connecticut's coastal resource systems by assuring that growth and development proceeds in a manner compatible with the capabilities and limitations of coastal resources and to encourage the restoration and enhancement of the natural integrity of disturbed or modified systems." (See CGS Section 22a-1) State agencies and interest groups citing the national importance of resource management were the Department of Agriculture, Aquaculture Division (see Section 2, p.6-3), the Council on Environmental Quality, the Connecticut Chapter of the Nature Conservancy, and the Connecticut Forest and Park Association.

APPENDIX H
FEDERAL CONSISTENCY

APPENDIX H

TABLE H-1

FEDERAL ACTIVITIES AND DEVELOPMENT PROJECTS SUBJECT TO A CONSISTENCY DETERMINATION

A. SPECIFIC ACTIONS:

<u>Federal Agency</u>	<u>Activity or Development Project</u>
Army Corps of Engineers Department of Defense	<ul style="list-style-type: none">- Proposed authorizations for dredging, channel improvements, other navigation works, beach replenishment, erosion control structures, dams or flood control works- land acquisition for spoil disposal or other purposes
Other Department of Defense Agencies	<ul style="list-style-type: none">- location, design, acquisition of new or expanded defense installations (active or reserve status), including associated housing, transportation or other facilities- plans, procedures and facilities for handling or storage of hazardous materials- establishment of impact, compatibility or restricted uses zones.
Department of Transportation	<ul style="list-style-type: none">- location, design, construction or enlargement of Coast Guard stations- location, placement or removal of air or sea navigation devices- expansion, abandonment, designation of anchorages, lightering areas, shipping lanes or pilot areas

TABLE H-1
(continued)

<u>Federal Agency</u>	<u>Activity or Development Project</u>
Department of Interior	<ul style="list-style-type: none"> - proposed land acquisition by the U.S. Fish and Wildlife Service or the National Park Service - OCS lease sales and other actions taking place on the Outer Continental Shelf, including but not limited to operating orders, exploration and development plans, etc. - development of federal minerals ownership (FMO) rights
General Services Administration	<ul style="list-style-type: none"> - location and design of proposed federal government property or buildings whether leased or owned by the federal government - disposal of federal surplus lands and approval
National Marine Fisheries Service (and North Atlantic Fisheries Management Council)	<ul style="list-style-type: none"> - preparation and approval of plans and implementing mechanisms pursuant to management of fisheries within the 200 nautical mile extended jurisdiction
Amtrak , Conrail	<ul style="list-style-type: none"> - expansions, curtailments, new construction, upgradings, or abondments of railroad facilities or services in or affecting the state, including actions regarding the Northeast Corridor Realignment

B. GENERALLY :

The following types of activities and development projects whether or not listed above are generally assumed to significantly affect Connecticut and, therefore, are subject to a consistency determination.

TABLE H-1
(continued)

1. Actions on Excluded Federal Lands

- any activity which would cause a discharge which otherwise would be subject to Connecticut air, water or hazardous materials regulations.
- any activity in a flood prone or erosion prone area which would lead to a significant change in drainage patterns, run-off coefficients, or sediment loadings
- any activity which would result in a significant change in population or change in land or water use/development patterns or which would require major new public investment

2. Actions Within the Coastal Management Area/State

- all development projects undertaken by a federal agency within Connecticut.
- all land acquisition or disposal actions.
- major research programs, inventories, management studies, or establishment of registers conducted by a federal agency preliminary to or as part of management decisions concerning Connecticut's coastal resources as defined by the Connecticut Coastal Management Act (Chapter 444, Sec. 22a-93 of the Connecticut General Statutes)
- designation of any land or water area the purpose of which being to impose restrictive use covenants, requirements, or controls.

3. Actions Outside the Coastal Management Area/State:

- any activity or development project (landward or seaward of the management area) which would result in a significant change in air or water quality within the management area.
- construction of a major federal facility in close proximity to Connecticut which could result in significant land or water use impacts, or require major public investment, or adversely affect the state's economy.

TABLE H-1
(continued)

Notes

- (1) Activities and development projects listed above should be reviewed specifically with respect to their impacts on:
 - Water quality
 - Air quality
 - Living resources, both terrestrial and marine
 - Natural, scenic, historic and cultural areas
 - Social and economic resources land use patterns
 - Effect on public facility and service investment
 - Plans and regulations of state and local governments
 - Recreational and visual access to coastal waters
- (2) The state recognizes the need to maintain flexibility in this process and acknowledges that a shorter review time or the development of consistency agreements and waivers may be necessary in the interests of national security or other overriding national interest.
- (3) The state through negotiation with federal agencies may enter into agreements limiting the applicability of consistency review based upon the scope, size, location or other characteristics of the proposed action.
(ref. Sec. 22a-96 of the Connecticut General Statutes)

TABLE H-2

PRELIMINARY LISTING

FEDERAL LICENSES AND PERMITS SUBJECT TO CONSISTENCY REVIEW ⁽¹⁾

<u>Federal Agency</u>	<u>License or Permit and Statutory Citation</u>
Army Corps of Engineers Department of Defense	<ul style="list-style-type: none"> - Construction of dams or ditches across navigable waters, or obstruction or alteration of navigable waters required under Sections 9 and 10 of the Rivers and Harbors Act of 1899 (U.S.C. 401, 403) - Establishment of harbor lines pursuant to Section 11 of the Rivers and Harbors Act of 1899 (33 U.S.C. 404,405) - Occupation of sea wall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the United States pursuant to Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. 408) - Approval of plans for improvements made at private expense under USACE supervision pursuant to the Rivers and Harbor Act of 1902 (33 U.S.C. 565) - Discharge of dredged spoils into the waters of the United States pursuant to the Federal Water Pollution Control Act of 1972, Section 404 (33 U.S.C. 1344) - All actions for which permits are required pursuant to Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

TABLE H-2
(continued)

<u>Federal Agency</u>	<u>License or Permit and Statutory Citation</u>
Army Corps of Engineers Department of Defense	- Construction of artificial islands and fixed structures in Long Island Sound pursuant to Section 4(f) of the River and Harbors Act of 1912 (33 U.S.C)
Coast Guard Department of Transportation	- Construction or modification of bridges, causeways or pipelines over navigable waters pursuant to 49 U.S.C. 1455 - Permits for Deepwater Ports pursuant to the Deepwater Ports Act of 1974 (33 U.S.C. 1501)
Environmental Protection Agency (To the extent that the issuance of any or all of EPA permits or licenses has been delegated to and continues to be delegated to the state the consistency determination process shall not apply. Coastal Management consistency will be satisfied pursuant to Sec 22a-96(d) of the Conn. General Statutes.)	- NPDES permits and other permits for federal installations, discharges in contiguous zones and ocean waters, sludge runoff permits and agriculture pursuant to Sections 401, 402, 403, 405, and 313 of the Federal Water Pollution Control Act of 1972 (33 U.S.C. 1341, 1342, 1343 and 1328) - Permits pursuant to the Resources Recovery and Conservation Act of 1976 - Permits pursuant to the Clean Air Act of 1976 (42 U.S.C. 1857)
Nuclear Regulatory Commission ⁽²⁾	- Licensing and certification of the siting, construction and operation of nuclear power plants pursuant to Atomic Energy Act of 1954, Title II of the Energy Reorganization Act of 1974 and the National Environmental Policy Act of 1969.

TABLE H-2
(continued)

<u>Federal Agency</u>	<u>License or Permit and Statutory Citation</u>
Federal Energy Regulatory ⁽²⁾ Commission	- licenses and permits ordering interconnection of electric transmission lines or issuing certificates of public commerce and necessity for interstate natural gas transmission, including approval of LNG sites pursuant to the Federal Power Act, the Energy Reorganization Act of 1974 and the Natural Gas Act
Department of Energy ⁽²⁾	- Regulation of gas pipelines, and licensing of import or export of natural gas pursuant to the Natural Gas Act (15 U.S.C. 717) and the Energy Reorganization Act of 1974 - siting, construction and operation of non-nuclear power plants.
U.S. Geological Survey Department of Interior	- permits to drill, rights of use and easements for construction and maintenance of pipelines, gathering and flow lines and associated structures pursuant to 43 U.S.C. 1334.
Bureau of Land Management ⁽³⁾ Department of Interior	- permits required for offshore drilling, pipeline corridors, and associated activities pursuant to the OCS Lands Act (43 U.S.C. 1334) and 43 U.S.C. 931(c) and 20 U.S.C. 185.
Fish and Wildlife Service Department of Interior	- endangered species permits pursuant to the Endangered Species Act (16 USC 153 (a)).

TABLE H-2
(continued)

Notes

- (1) Mechanisms may be developed to allow for a waiver of certain steps in the State Review Process for projects covered by listed permits and licenses. Such waivers will be based on the size, scope, location and extent of State and local control of the proposed activity, and shall be negotiated pursuant to Sec. 22a-96 of the Conn. General Statutes.
- (2) These activities may be covered under the Conn. Public Utility Environmental Standards Act (Sec. 16-50 g-z of the Conn. General Statutes). If a permit or license is required under the jurisdiction of the Power Facilities Evaluation Council, no separate review will be required.
- (3) These activities may be covered under review of OCS plans. If the permits and licenses are part of such plan no separate review will be required.

TABLE H-3
PRELIMINARY LISTING

FEDERAL ASSISTANCE PROGRAMS SUBJECT TO CONSISTENCY REVIEW

DEPARTMENT OF AGRICULTURE

- 10.409 Irrigation, Drainage, and other Soil and Water Conservation Loans
- 10.414 Resource Conservation and Development Loans
- 10.418 Water and Waste Disposal Systems for Rural Communities
- 10.419 Watershed Protection Flood Prevention Loans
- 10.422 Business and Industrial Loans
- 10.423 Community Facilities Loans
- 10.424 Industrial Development Grants
- 10.901 Resource Conservation and Development (construction only)
- 10.904 Watershed Protection and Flood Prevention (construction only)

DEPARTMENT OF COMMERCE

- 11.300 Economic Development-Grants and Loans for Public Works and Development Facilities
- 11.304 Economic Development-Public Works Impact Projects
- 11.310 Local Public Works Capitol Development and Investment Act of 1976 Projects
- 11.407 Commercial Fisheries Research and Development
- 11.501 Development and Promotion of Ports and Intermodel Transportation

DEPARTMENT OF DEFENSE

- 12.101 Beach Erosion Control Projects
- 12.106 Flood Control Projects
- 12.107 Navigation Projects
- 12.108 Snagging and Clearing for Flood Control
- 12.109 Protection, Clearing and Straightening Channels

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

- 14.001 Flood Insurance
- 14.112 Mortgage Insurance-Construction or Rehabilitation of Condominium Projects
- 14.115 Mortgage Insurance-Development of Sales-Type Cooperative Projects

TABLE H-3
(continued)

14.124 Mortgage Insurance-Investor Sponsored Cooperative Housing
14.125 Mortgage Insurance-Land Development and New communities
14.126 Mortgage Insurance-Management Type Cooperative Projects
14.127 Mortgage Insurance-Mobile Home Parks
14.128 Mortgage Insurance-Hospitals
14.129 Mortgage Insurance-Nursing Homes and Related Care Facilities
14.207 New Communities-Loan Guarantees
14.218 Community Development Block Grants/Entitlement Grants
14.219 Community Development Block Grants/Discretionary Grants
14.701 Disaster Assistance

DEPARTMENT OF THE INTERIOR

15.207 Minerals leasing
15.802 Minerals Discovery Loan Program
15.950 Additional Water Resources Research

DEPARTMENT OF TRANSPORTATION

20.102 Airport Development Aid Program
20.205 Highway Research, Planning and Construction(construction
only)
20.506 Urban Mass Transportation Demonstration Grants

ENVIRONMENTAL PROTECTION AGENCY

66.005 Air Pollution Control Survey and Demonstration Grants
(construction projects only)
66.418 Construction Grants for Wastewater Treatment Works
66.452 Solid Waste Management Demonstration Grants
66.505 Water Pollution Control-Research, Development, and
Demonstration (construction projects only)
66.506 Safe Drinking Water Research and Demonstration Grants
(construction projects only)

1) Reference to Catalog of Federal Domestic Assistance, 1978.

2) DEP reserves the right to monitor proposed federal assistance projects other than those described above through the A-95 and other review processes. Where such monitoring indicates a significant impact on the State's coastal region and a subsequent need for a consistency determination DEP shall notify the statewide A-95 clearing house, relevant regional A-95 clearinghouse, the applicant agency, involved federal agencies, and the Associate Administrator for Coastal Zone Management of its intention to make such a determination.

APPENDIX I
FEDERAL NAVIGATION PROJECTS

WATER BODY	LOCATION	NAVIGATIONAL IMPROVEMENTS	ORIGINAL DATE OF COMPLETION	COST
Branford Harbor Branford River	Branford	2.7 miles of 100' channel	1907	\$9,537
Stony Creek	Branford	0.5 miles of 100' channel, 3.5 acre maneuvering basin	1970	\$204,487 (includes \$92,000 local contribution)
Black Rock Harbor	Bridgeport	4.7 miles 125'-400' channel, 35' deep turning basin, 25' anchorage two 18' anchorages		\$4,260,556 (\$147,887 local)
Yellow Mill Channel	Bridgeport	1.0 mile of 150'-200' channel		(see above)
Pequonnock River Bridgeport Harbor	Bridgeport	4.7 miles of 125'-400' channel, 35' turning basin, 25' anchorage, two 18' anchorages, 1 harbor breakwaters		(see above)
Johnsons River	Bridgeport	1.0 mile of 100'-200' channel, two 6' anchorages, 9' anchorage		(see above)
Clinton Harbor	Clinton	1.1 miles of 100' channel	1951	\$79,000 (in- cludes \$6,600 local contri- bution)
Connecticut River		21 miles of 150' channel, 2 jetties at river mouth (5 miles in the Coastal Area)		\$1,384,221 (\$130,410 local)

WATER BODY	LOCATION	NAVIGATIONAL IMPROVEMENTS	ORIGINAL DATE OF COMPLETION	COST
Five Mile River	Darien, Norwalk	0.85 mile of 100' channel	1910	\$35,490
Essex Harbor	Essex	1.0 mile of 100' channel, 8' and 10' anchorages		(see Connecticut River)
Southport Harbor	Fairfield	1.0 mile of 100'-400' channel, 6' anchorage	1936	\$55,454 (\$17,740 local)
Thames River	Groton, New London to Norwich	14.7 miles of 250'-600' channel, manuvering basin, access channels	1938, 1942 (Harbor)(River)	1,892,000
Cos Cob Harbor Mianus River	Greenwich	2.4 miles of 100' channel	1951	\$178,935 (\$46,500 local)
Greenwich Harbor	Greenwich	1.5 miles of 130' channel, 6' and 8' anchorages	1951	\$281,741 (\$100,000 local)
Mystic River	Groton, Stonington	3.75 miles of 100'-125' channel, 9' anchorage	1957	\$174,982 (\$14,000 local)
Guilford Harbor East River	Guilford	1.0 mile of 60'-100' channel, 6' anchorage	1957	\$162,722 (includes \$25,500 local con- tributions)
Eight Mile River	Lyme	1.0 mile of 75' channel, 8' turning basin		(see Connecticut River)
Milford Harbor Wepawaug River	Milford	1.0 mile of 100' channel, 8' and 10' anchorages, 2 jetties		\$102,000 (\$11,380 local)

WATER BODY	LOCATION	NAVIGATIONAL IMPROVEMENTS	ORIGINAL DATE OF COMPLETION	COST
Housatonic River	Milford, Stratford	7.3 miles of 100'-200' channel, breakwater at Milford Point	1957	\$1,081,701 (includes \$222,010 local contribution)
New Haven Harbor	New Haven	6.3 miles of 100'-800' channel, 15' and 16' anchorages, 3 harbor breakwaters	1950	\$4,365,000
			1915	\$1,242,246
Mill River	New Haven	0.7 mile of 100'-200' channel	1950	(see above)
Quinnipiac River	New Haven	0.4 mile of 200' channel	1950	(see above)
Norwalk Harbor	Norwalk	5.0 miles of 200' channel, two 6' anchorages, two 10' anchorages, 12' anchorage	1950	566,000 \$34,500 local
Wilson Harbor	Norwalk	1.0 mile of 200'-700' channel	1892	\$54,177
North Cove	Old Saybrook	0.4 mile of access channel, 6' and 11' anchorages		(see Connecticut River)
Stamford Harbor	Stamford	1.0 mile of 200' channel, 15' basin, 2 harbor breakwaters		\$1,063,000 ((\$169,636 local))
West Branch	Stamford	0.75 mile of 125' channel, 15' basin		(see above)
East Branch	Stamford	1.8 miles of 125' channel		(see above)
Westcott Cove	Stamford	0.8 mile of 100' channel	1963	\$76,960 ((\$21,000 local))

WATER BODY	LOCATION	NAVIGATIONAL IMPROVEMENTS	ORIGINAL DATE OF COMPLETION	COST
Stonington Harbor	Stonington	10' and 12' anchorages, 2 harbor breakwaters	1957	\$39,874
Little Narragansett Bay, Pawcatuck River	Stonington, Westerly, R.I.	7.75 miles of 100'-200' channel, 10' anchorage		\$338,000 (\$20,000 local)
Niantic Bay Niantic Harbor	Waterford East Lyme	2.8 miles of 100' channel	1970	\$133,963
Duck Island, Patchogue River	Westbrook	1.0 mile of 75' channel, 16' anchorage, 3 breakwaters	1917 1956	\$367,298 \$250,000 (\$100,000 local contribution)
Saugatuck River Westport Harbor	Westport	0.6 miles of 60' channel	1896	\$19,308
			TOTAL	\$18,418,652

APPENDIX J
AREAS OF SIGNIFICANT EROSION

NAME OF SITE: Westcott Cove (west side)

TOWN: Stamford

COUNTY: Fairfield

QUADRANGLE: Stamford

APPROXIMATE LIMITS: Channel to Cummings Park boat basin south .6mi. to the point at which the shoreline turns east.

LENGTH: .6 miles (.9 Km.)

OWNERSHIP: Predominantly private with some municipal public beach (West Beach).

LAND USE: Urban low-density residential, public recreational beach

TYPE OF FEATURE: Land contact beach fronting drumlin.

HISTORY OF CHANGE: South end - no change 1933-1953
North end - erosion, 100ft. 1933-1953

HISTORY OF MANAGEMENT: Major groin field at southern end of segment. Sea-walls also present. All private structures

JUSTIFICATION FOR DESIGNATION: Large magnitude of change in recent past has resulted in removal of much beach material.

NAME OF SITE: Sherwood Island State Park , Compo Mill Beach

TOWN: Westport

COUNTY: Fairfield

QUADRANGLE: Sherwood Point

APPROXIMATE LIMITS: Sherwood Mill Pond to Greens Farms Brook

LENGTH: 1.4 miles (2.3 Km.)

OWNERSHIP: State, private residential

LAND USE: Public recreational beach, residential low-density (estate)

TYPE OF FEATURE: Land contact beach at Sherwood Point. Barrier beaches extending east and west from point. Central portion of "island" is outwash with till hill on western flank.

HISTORY OF CHANGE: Sherwood Point: erosion (hightide shoreline) 250ft. , 1957-1971
erosion (lowtide shoreline) 125ft. 1957-1971
East Beach: erosion (hightide shoreline) 25ft. 1957-1971
(low tide shoreline) 200ft., 1957-1971
West Beach: (high tide shoreline) 15ft., 1957-1971
(low tide shoreline) variable changes)

HISTORY OF MANAGEMENT: 1957 - Sherwood Island State Park, Burial Hill Creek Stabilized with training walls, 1,070,000 yd.³ of sand fill placed, groin constructed at west-end of western beach.

JUSTIFICATION FOR DESIGNATION: Recent history of significant erosion. Large important recreational resource maintained only by artificial beach fill.

NAME OF SITE: Fairfield Beach to Pine Creek Point

TOWN: Fairfield

COUNTY: Fairfield

QUADRANGLE: Bridgeport/Westport/Sherwood Point

APPROXIMATE LIMITS: Pine Creek to a position 0.5 miles north of Shoal Point

LENGTH: 2.0 miles (3.3 Km)

OWNERSHIP: Predominantly private; public access at Shoal Point

LAND USE: Private recreational beach, urban low-density residential.

TYPE OF FEATURE: Land contact beach (east end of site).
Barrier beach (west end of site)

HISTORY OF CHANGE: Fairfield Beach: Minor changes
Shoal Point: accretion, 50 ft., 1933-1933
accretion, 50 ft., 1933-1948
erosion, 200 ft., 1943-1970
West Fairfield Beach: 1300 ft. truncated from end of barrier
beach 1948-1960

HISTORY OF MANAGEMENT: 1959 - Fairfield Beach, 140,000 yd³. of sand fill placed,
two groins constructed.
1964 - West Fairfield Beach, 165,000 yds. of fill placed,
7 groins constructed.

JUSTIFICATION FOR DESIGNATION: Erosion poses serious threat to urban high-density
residential area. Pine Creek Spit is a migratory
barrier beach. High intensity development and
stabilization renders barrier beach unable to adjust
to rising sea level.

NAME OF SITE: Point No Point/Long Beach/Pleasure Beach

TOWN: Stratford/Bridgeport

COUNTY: Fairfield

QUADRANGLE: Bridgeport

APPROXIMATE LIMITS: Bridgeport Harbor to a position 0.5 miles east of Point No Point

LENGTH: 2.8 miles (4.5 Km); Bridgeport - .4 miles (.6 Km)

Stratford - 2.4 miles (3.9 Km)

OWNERSHIP: Predominantly municipal, some private residential

LAND USE: Public recreational beach, residential urban high and low-density.

TYPE OF FEATURE: Point No Point - land contact beach
Long Beach/Pleasure Beach - barrier beach

HISTORY OF CHANGE: Point No Point: minor changes - erosion on east end accretion on west end.

Long Beach: migration, 200 - 300 ft., 1883 - 1933
migration, 150 ft., 1933 - 1950
breached by storm, 700 ft. wide, 1950
breach artificially closed 1960

Pleasure Beach: accretion up to 400 ft., 1883 - 1933
accretion up to 250 ft., 1933 - 1950

HISTORY OF MANAGEMENT: little change, 1960 - 1970

1966 - Long Beach: 600,000 yds.³ of sand fill placed, 7 groins constructed.

JUSTIFICATION FOR DESIGNATION: Proximity of residential structures to shoreline at Point No Point. Long Beach/Pleasure Beach is a barrier beach subject to breaching and landward migration.

NAME OF SITE: Silver Sands Beach to Milford Point

TOWN: Milford

COUNTY: New Haven

QUADRANGLE: Milford

APPROXIMATE LIMITS: Milford Point to Silver Beach

LENGTH: 4.0 miles (6.5 Km)

OWNERSHIP: State (Silver Sands Beach), remainder privately owned by individuals or beach associations. Some public access points do occur within private sectors.

LAND USE: Public Recreational Beach, urban low-density residential, urban high-density residential.

TYPE OF FEATURE: Silver, Myrtle and Cedar Beaches and Milford Point are barrier beaches backed by marsh and much artificial fill. Walnut, Wildermere and Laurel Beaches are land contact beaches fronting glacial outwash.

HISTORY OF CHANGE: Myrtle to Cedar Beaches - erosion, 50 - 100 ft., 1933 - 1949
Cedar Beach - accretion, 50 ft., 1933 - 1949
Milford Point - minor migration northward
 lateral growth, 100 ft., 1910 - 1933
 lateral growth, 100 ft., 1933 - 1949

HISTORY OF MANAGEMENT: 1960 - Silver, Meadows End and Myrtle Beaches 223,000 yds.³ of sand fill placed.
1965 - Laurel Beach 70,000 yds of sand fill placed, 2 groins constructed.
many other private seawalls, groins and revetments constructed on indeterminate dates.

JUSTIFICATION FOR DESIGNATION: Public and private beaches maintained solely by filling. Residential structures in eminent danger.
Milford Point is a migratory barrier beach.

NAME OF SITE: Gulf Beach

TOWN: Milford

COUNTY: New Haven

QUADRANGLE: Milford

APPROXIMATE LIMITS: Milford Harbor entrance to Welches Point

LENGTH: 0.5 miles (0.8 Km)

OWNERSHIP: Public (Town of Milford), private residential (approximately equal portions)

LAND USE: Public recreational beach, residential

TYPE OF FEATURE: Land contact beach fronting till.

HISTORY OF CHANGE: Erosion, southerly section, 50 ft. 1933 - 1949
accretion, at jetty on northerly end, 150 ft. 1933 - 1949

HISTORY OF MANAGEMENT: 1957- 55,000 yds.³ of sand fill placed
1966- 15,000 yds.³ of sand fill placed
1967- jetty extended and raised

JUSTIFICATION FOR DESIGNATION: Public recreational beach maintained only through regular nourishment.

NAME OF SITE: Point Beach to Bayview Beach

TOWN: Milford

COUNTY: New Haven

QUADRANGLE: Milford

APPROXIMATE LIMITS: Welches Point to Pond Point

LENGTH: 1.22 miles (2.0 Km.)

OWNERSHIP: Private with some public access points

LAND USE: Private recreational beaches fronting urban low-density residential areas.

TYPE OF FEATURE: Land contact beach with small barrier beach between two outwash headlands

HISTORY OF CHANGE: Point Beach - minor erosion 1933-1939
Bayview Beach - relatively stable

HISTORY OF MANAGEMENT: Private stabilization in the form of revetments, seawalls and groins

JUSTIFICATION FOR DESIGNATION: Residential structures in eminent danger of damage from erosion of any magnitude.

NAME OF SITE: Woodmont

TOWN: Milford

COUNTY: New Haven

QUADRANGLE: Woodmont

APPROXIMATE LIMITS: Merwin Point to Oyster River

LENGTH: 0.8 miles (1.3 Km)

OWNERSHIP: Public, private (approximately equal portions)

LAND USE: Private recreational beach with some public access points, public recreational beach, both backed by residential suburban high and low density.

TYPE OF FEATURE: Land contact beach fronting glacial till

HISTORY OF CHANGE: Minor changes erosion ~ 50 ft., 1838-1949

HISTORY OF MANAGEMENT: 1959 - 5 groins constructed, 170,000 yds.³ of sand fill placed between Oyster River and Merwin Point
1964 - 5 groins repaired, 63,000 yds.³ of sand fill placed.

JUSTIFICATION FOR DESIGNATION: Recreational beach experiencing continual erosion. Beach facility maintained only through repeated nourishment.

NAME OF SITE: Prospect and Savin Rock Beaches

TOWN: West Haven

COUNTY: New Haven

QUADRANGLE: New Haven/Woodmont

APPROXIMATE LIMITS: Oyster River to Sandy Point

LENGTH: 4.6 miles (7.5 Km.)

OWNERSHIP: Principally public (town of West Haven) some private residential and beach associations.

LAND USE: Public recreational beach with some public access points.

TYPE OF FEATURE: Land contact beach between Oyster River and Morse Point. Sandy Point and Morse Point spits are barrier beaches.

HISTORY OF CHANGE: Sandy Point - migration (north) 800 ft., 1884-1971
lateral growth (east) 2300 ft., 1884-1971
Morse Point - lateral growth (east) 1300 ft., 1949-1971
Savin Rock Beach - accretion (along entire length)
50 - 100 ft., 1933 - 1949
Savin Rock Beach - erosion (along entire length) 50-100 ft., 1949-1971
(Prospect Beach - accretion along entire length 50 - 100 ft., 1949-1971)

HISTORY OF MANAGEMENT: 1957 - 440,000 yds³ of sand fill₃ placed on Prospect Beach
1973 - 6 groins built 25,000 yds³ of sand fill placed, 2 groins built on Prospect Beach

JUSTIFICATION FOR DESIGNATION: Recreational beach with a history of large scale maintenance and filling. Sandy point, Morse Point are migratory barrier features.

NAME OF SITE: Lighthouse Point

TOWN: New Haven

COUNTY: New Haven

QUADRANGLE: Woodmont

APPROXIMATE LIMITS: Lighthouse Point to Morris Creek

LENGTH: 0.25 miles (0.4 Km)

OWNERSHIP: Municipal

LAND USE: Public recreational beach

TYPE OF FEATURE: Land contact beach fronting artificial fill

HISTORY OF CHANGE: erosion - 50 ft., 1952 - 1955
accretion - 100 - 200 ft., 1960-1970
(possible fill)

HISTORY OF MANAGEMENT: 1958 - groin constructed at west end of beach
1949 - 168,000 yds³ of fill placed on beach

JUSTIFICATION FOR DESIGNATION: Public recreational beach requiring significant beach nourishment for maintenance. Erosion constitutes large impact on public use.

NAME OF SITE: Momauguin and Silver Sands Beaches

TOWN: East Haven

COUNTY: New Haven

QUADRANGLE: Branford/Woodmont

APPROXIMATE LIMITS: Caroline Creek to Mansfield Point

LENGTH: .95 miles (1.5 Km)

OWNERSHIP: Private with one small section of public beach

LAND USE: Residential (suburban high - density), recreational beach.

TYPE OF FEATURE: Eastern end, land contact beach fronting artificial fill. West end, barrier beach.

HISTORY OF CHANGE: Momauguin - erosion 100 ft., 1885-1952
Silver Sands - erosion (west end) 100 ft., 1933-1952

HISTORY OF MANAGEMENT: Caroline Creek structurally relocated and channelized. Channelization has failed private seawalls and groins along beaches.

JUSTIFICATION FOR DESIGNATION: Residential structures presently standing in water during normal tide conditions as a result of erosion of beach area.

NAME OF SITE: Chaffinch Island

TOWN: Guilford

COUNTY: New Haven

QUADRANGLE: Guilford

APPROXIMATE LIMITS: Tuttle's Point to West River

LENGTH: 0.46 miles (0.75 Km)

OWNERSHIP: Public, private residential

LAND USE: Open space - vacant land

TYPE OF FEATURE: Two arcuate marsh coves punctuated by three bedrock headlands. Minor deposits of beach material present in coves

HISTORY OF CHANGE: erosion - (entire segment) 200 - 300 ft., 1885 - 1933
erosion - (entire segment) 150 - 200 ft., 1933 - 1948
erosion - (west cove) 100 ft., 1948 - 1970

HISTORY OF MANAGEMENT: No structures, undeveloped

JUSTIFICATION FOR DESIGNATION: Largest magnitude of recent change on Connecticut coast.

NAME OF SITE: Circle Beach - Grass Island.

TOWN: Madison/Guilford

COUNTY: New Haven

QUADRANGLE: Guilford

APPROXIMATE LIMITS: West end of Grass Island to Hogshead Point

LENGTH: 0.9 miles (1.5 Km) Guilford - 0.8 miles (1.3 Km)
Madison - 0.1 miles (0.2 Km)

OWNERSHIP: Circle Beach - Predominantly private
Grass Island - municipal

LAND USE: Public recreational beach, private recreational beach fronting open space and residential suburban low - density.

TYPE OF FEATURE: Minor barrier feature backed by tidal marsh.

HISTORY OF CHANGE: Circle Beach - erosion 50 ft., 1883 - 1948
Grass Island - erosion(south shore) 200 ft., 1838 - 1933
Grass Island - erosion(west shore) 100 ft., 1838 - 1933

HISTORY OF MANAGEMENT: Private groins and seawalls

JUSTIFICATION FOR DESIGNATION: Circle Beach - proximity of houses to water. Houses directly on beach. Grass Island - large magnitude of change combined with presence of residences in immediate proximity to shoreline.

NAME OF SITE: Hammonasset Beach

TOWN: Madison

COUNTY: New Haven

QUADRANGLE: Clinton

APPROXIMATE LIMITS: Webster Point to Hammonasset Point

LENGTH: 1.9 miles (3.1 Km)

OWNERSHIP: State

LAND USE: Public Recreational beach

TYPE OF FEATURE: Land contact beach with small barrier feature at eastern end connecting the central outwash body with eastern till exposures.

HISTORY OF CHANGE: erosion - (west end) 150 ft., 1883 - 1949
accretion - (east end) 100 ft., 1883 - 1949
changes between 1883 and 1949 indicate rotation of shoreline clockwise about central point.

HISTORY OF MANAGEMENT: 1955 - Toms Creek inlet channelized by training walls, groin constructed at Hammonasset Point, 380,000 yds of sand fill placed on beach.

JUSTIFICATION FOR DESIGNATION: Major state shoreline recreational facility subject to regular erosion.

NAME OF SITE: Grove Beach, Clinton Beach

TOWN: Westbrook/Clinton

COUNTY: Middlesex

QUADRANGLE: Essex/Clinton

APPROXIMATE LIMITS: Kelsey Point to Grove Beach Point

LENGTH: 2.3 miles (3.7 Km) Westbrook - 1.1 miles (1.8 Km)
Clinton - 1.2 miles (1.9 Km)

OWNERSHIP: Private

LAND USE: Private recreational beach fronting residential urban
low-density.

TYPE OF FEATURE: Land contact beach fronting end moraine. Flanked on east and west
by barrier beaches fronting salt marsh. Artificial fill present
in marsh behind Grove Beach.

HISTORY OF CHANGE: Grove Beach - erosion, 300 - 500 ft., 1883-1970
(major changes at east end)
Clinton Beach - erosion, 50 - 150 ft., 1883 - 1970
(regular erosion between Kelsey Point and a position
1.7 miles east of Point)

HISTORY OF MANAGEMENT: Groin field at Clinton Beach privately constructed.

JUSTIFICATION FOR DESIGNATION: Proximity of residential structures to shoreline in
shoreline in combination with historical erosional
changes.

NAME OF SITE: West Beach

TOWN: Westbrook

COUNTY: Middlesex

QUADRANGLE: Essex

APPROXIMATE LIMITS: Groin at east end of beach to a point 0.25 miles (0.4 Km)
west

LENGTH: 0.25 miles (0.4 Km)

OWNERSHIP: Private and municipal

LAND USE: Public recreational beach fronting urban low density residential

TYPE OF FEATURE: Barrier beach extending west from morainal deposits, fronting tidal
marsh

HISTORY OF CHANGE: erosion ~ 100 ft., 1933 - 1949
erosion ~ 50 ft., 1949 - 1970

HISTORY OF MANAGEMENT: Large groin at east end of segment constructed on unknown
date

JUSTIFICATION FOR DESIGNATION: Recent erosional changes adversely impacting land use
at municipal beach.

NAME OF SITE: Plum Bank, Great Hammock Beach

TOWN: Old Saybrook

COUNTY: Middlesex

QUADRANGLE: Essex

APPROXIMATE LIMITS: Indiantown Harbor to Cornfield Point

LENGTH: 1.1 miles (1.8 Km)

OWNERSHIP: Private, one small segment of municipal beach

LAND USE: Private recreational beach fronting
urban low-density residential.

TYPE OF FEATURE: barrier beaches fronting substantial artificial fill projecting north
from morainal deposit at Cornfield Point.

HISTORY OF CHANGE: No documented changes over the period of record.

HISTORY OF MANAGEMENT: Many private seawalls, revetments, groins.

JUSTIFICATION FOR DESIGNATION: Location of residential development on beach.
Any erosion will produce serious effects on land use.

NAME OF SITE: Griswold Point

TOWN: Old Lyme

COUNTY: New London

QUADRANGLE: Old Lyme

APPROXIMATE LIMITS: Griswold Point to White Sands Beach

LENGTH: 0.9 miles (1.5 Km)

OWNERSHIP: non-profit private organization (Nature Conservancy) and private.

LAND USE: Undeveloped, open space; residential estate

TYPE OF FEATURE: Barrier spit extending from morainal deposits on east into Connecticut River.

HISTORY OF CHANGE: Northern migration 200 ft. 1883 - 1949
lateral westerly growth 1000 ft. 1883 - 1949
northern migration 100 - 200 ft. 1949 - 1970
lateral westerly growth 400 ft. 1949 - 1970

HISTORY OF MANAGEMENT: no structural or non-structural management

JUSTIFICATION FOR DESIGNATION: Large scale migratory feature subject to major migration and lateral growth.

NAME OF SITE: White Sands Beach to Hatchett Point

TOWN: Old Lyme

COUNTY: New London

QUADRANGLE: Old Lyme

APPROXIMATE LIMITS: White Sands Beach to Hatchett Point

LENGTH: 2.6 miles (4.2 Km)

OWNERSHIP: Predominantly private, ~ 0.7 miles in public ownership.

LAND USE: Residential urban high and low-density with private recreational beach, some public beach, undeveloped wetland and open space.

TYPE OF FEATURE: Land contact beach fronting till, outwash and end moraine with minor barrier beaches between.

HISTORY OF CHANGE: erosion - average ~ 50 - 100 ft., 1883 - 1949
White Sands Beach ~ erosion - 200 ft., 1883 - 1949

HISTORY OF MANAGEMENT: 1957 - 2 groins constructed at White Sands Beach in addition to existing groin.
1966 - 37,000 yds.³ of sand fill placed at White Sands Beach.
Large private groin field maintained at Hawks Nest Beach by beach association.

JUSTIFICATION FOR DESIGNATION: Residential structures in area constructed on beach in close proximity to water. Any erosion will result in major impact on use.

NAME OF SITE: Chalker Beach

TOWN: Old Saybrook

COUNTY: Middlesex

QUADRANGLE: Essex

APPROXIMATE LIMITS: Cold Spring Brook east to Mud Creek

LENGTH: 0.6 miles (0.9 Km)

OWNERSHIP: Private

LAND USE: Private recreational beach fronting urban low-density residential

TYPE OF FEATURE: Barrier beach backed by substantial artificial fill on contiguous wetland.

HISTORY OF CHANGE: Minor changes over period of record, most resulting from erosion and accretion around groins.

HISTORY OF MANAGEMENT: 1961 - 9700 yds.³ of sand fill placed on beach, private groins.

JUSTIFICATION FOR DESIGNATION: Any erosion will result in adverse impact on residential structures located on beach.

NAME OF SITE: Oak Grove Beach, Pond Point

TOWN: East Lyme

COUNTY: New London

QUADRANGLE: Niantic

APPROXIMATE LIMITS: 0.25 miles north and south of Pond Point

LENGTH: 0.5 miles (0.8 Km)

OWNERSHIP: Private

LAND USE: Residential, urban low-density with private recreational beach.

TYPE OF FEATURE: Small barrier and land contact beaches fronting Indian Pond.
Bedrock exposed in foreshore.

HISTORY OF CHANGE: erosion: (south of point) \sim 150 ft., 1882 - 1949
erosion: (south of point) \sim 200 ft., 1949 - 1970

HISTORY OF MANAGEMENT: No control structures in evidence

JUSTIFICATION FOR DESIGNATION: Large magnitude of change south of Pond Point.
Proximity of residences to water north of Pond Point.

NAME OF SITE: Jordan Cove Spit

TOWN: Waterford

COUNTY: New London

QUADRANGLE: Niantic

APPROXIMATE LIMITS: North end of Jordan Cove Spit to north end of Pleasure Beach.

LENGTH: 0.5 miles (0.8 Km)

OWNERSHIP: Private

LAND USE: Open space (regulated tidal wetland)

TYPE OF FEATURE: Barrier spit fronting salt marsh

HISTORY OF CHANGE: Lateral growth (westerly) ~ 1300 ft. 1883 - 1949
Lateral growth (northerly) ~ 400 ft. 1949 - 1970
Landward migration ~ 50 - 100 ft. 1949 - 1970
erosion (southwest point) ~ 100 ft. 1949 - 1970

HISTORY OF MANAGEMENT: 2 bulkheads constructed privately on landward side of spit
prior to 1949

JUSTIFICATION FOR DESIGNATION: Medium scale barrier feature subject to major
historical migration and lateral growth.

NAME OF SITE: Ocean Beach

TOWN: New London

COUNTY: New London

QUADRANGLE: New London

APPROXIMATE LIMITS: Alewife Brook to Long Rock

LENGTH: 0.4 miles (0.6 Km)

OWNERSHIP: Municipal

LAND USE: Recreational Beach

TYPE OF FEATURE: Barrier beach

HISTORY OF CHANGE: General accretion, 50-100 ft., 1839-1883
General erosion, 25-50 ft., 1883-1955
Migration of Alewife Cove inlet 100 ft. southward, 1839-1955

HISTORY OF MANAGEMENT: Beach fill, unknown volume, 1940.

JUSTIFICATION FOR DESIGNATION: Important public recreational beach facility
located on small scale migratory barrier beach.

NAME OF SITE: Bluff Point - Bushy Point Beach

TOWN: Groton

COUNTY: New London

QUADRANGLE: New London

APPROXIMATE LIMITS: West end of Bushy Point Beach to Mumford Point

LENGTH: 1.2 mile (2.0 Km)

OWNERSHIP: State

LAND USE: Coastal Reserve

TYPE OF FEATURE: Bedrock core drumlin (Bluff Point)
with associated barrier spit (Bushy Point Beach)

HISTORY OF CHANGE: Bushy Point Beach originally formed as a tombolo through reworking and transport of till from Bluff Point, Bushy Point and the till platform on which it rests. Tombolo was breached in 1938, by hurricane, forming spit. Landward recession of ~ 150 ft., 1846 - 1949.

HISTORY OF MANAGEMENT: Undeveloped, no control structures

JUSTIFICATION FOR DESIGNATION: Large scale migratory feature exhibiting significant change, breaching.

NAME OF SITE: Sandy Point.

TOWN: Stonington

COUNTY: New London

QUADRANGLE: Mystic

APPROXIMATE LIMITS: Distal end of Sandy Point to Connecticut/Rhode
Island Border.

LENGTH: 0.3 miles (0.48 Km)

OWNERSHIP: Private

LAND USE: Private recreational beach

TYPE OF FEATURE: Barrier spit

HISTORY OF CHANGE:

Lateral growth (northerly) from Napatree Point, breached in
1938 by hurricane. Recent migration to north occurring in
conjunction with counter clockwise rotation of barrier island.

HISTORY OF MANAGEMENT:

Undeveloped, no control structures

JUSTIFICATION FOR DESIGNATION:

Large scale barrier island subject to major migratory
change and breaching.

APPENDIX K
SHORE PROTECTION PROJECTS

LOCATION NUMBER	LOCATION (CONSTRUCTION DATE)	DESCRIPTION PROJECT NUMBER	COST TO FED. GOV'T	COST TO STATE	LOCAL COST	TOTAL
<u>BRANFORD</u>						
1	25	*Branford Point Park (1963) 11,000 yd ³ of sand fill placed along 300' of beach widening it to 100'		18237.00	9119.00	27356.00
		BI-FC-50				
		Town Total				27356.00
<u>BRIDGEPORT</u>						
2	12	Grover Hill (1968) 2320' of stone revetment Constructed parallel to Grover Ave.		133395.00	66697.00	200092.00
		BI-FC-63				
		*Seaside Park (1957) 550,000 yd ³ of sand fill placed along 8800' of beach widening it to 125' between Breezy Point and Fayerwether Island.	150000.00	169947.00	159973.00	479920.00
		Town Total				680012.00
<u>CLINTON</u>						
4	29	*Clinton Town Beach (1964) 21,000 yd ³ of sand fill placed on beach		29885.00	14942.00	44827.00
		BI-FC-33				
		Town Total				44827.00
<u>EAST HAVEN</u>						
5	24	West Silver Sands (1958) 1 200' groin constructed, 170,000 yd ³ of sand fill placed along 2550' of beach widening it to 100'		78714.00	157428.00	237142.00
		BI-FC-11 A&B				
		Town Total				237142.00

ID NUMBER	LOCATION NUMBER	LOCATION (CONSTRUCTION DATE) DESCRIPTION PROJECT NUMBER	COST TO FED. GOV'T	COST TO STATE	LOCAL COST	TOTAL
<u>EAST LYME</u>						
6	33	Giants Neck (1975) 2 sections of Stone revetment constructed 300' and 550' long parallel to Giants Neck Road and Patagansett Road		23966.00 +20000.00	47933.00	91899.00
7	34	*McCook Point (1974) 300' of stone revetment constructed east side of Point. One groin 150' long constructed east of point BI-FC-69			86090.00	86090.00
		Town Total				177989.00
<u>FAIRFIELD</u>						
8	11	*Jennings Beach (1951) 800' long jetty constructed west of mouth of Ash Creek BI-FC-14 BI-FC-5 A	14401.00	14799.00	13941.00	43141.00
9	10	Fairfield Beach (1959) 140,000 yd ³ of sand fill placed along 4400' of beach, two 325' long groins constructed between Shoal Point and Jennings Beach. BI-FC-18 A&B		80269.00	160538.00	240807.00
10	8	*Sasco Hill Beach (1958) 20,000 yd ³ of sand fill placed along 900' of beach widening it to 100', one 400' jetty constructed east of entrance to Southport Harbor BI-FC-5A BI-FC-14	23759.00	23759.00	23758.00	71276.00

ID NUMBER

LOCATION NUMBER

LOCATION (CONSTRUCTION DATE)

DESCRIPTION

PROJECT NUMBER

COST TO
FED. GOV'TCOST TO
STATELOCAL
COST

TOTAL

FAIRFIELD (Con't)

11	7	*Southport Beach (1957-58) 22,000 yd ³ of sand fill placed along 700' of beach widening it 700' to 100', 400' long groin constructed east of mouth of Sasco Brook.	17631.00	17632.00	17631.00	52894.00
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BI-FC-5A BI-FC-14

12	9	West Fairfield Beach (1964) 165,000 yd ³ of fill placed along 5600' of beach, 7 groins constructed (2 by town) between Pine Creek Pt. and Shoal Point.		121792.00	243576.00	365368.00
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BI-FC-39 A&B

Town Total

773486.00

GROTON

13	38	*Esker Point Park (1969) 14,500 yd ³ of material excavated, 7,403 yd ³ of sand fill placed.		88569.00	44284.00	132853.00
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BI-FC-55

14	37	*Avery Point, UConn (1971) 12,000 ft. ² of seawall repaired east side of Avery Point		45793.00		45793.00
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BI-FC-74

Town Total

178646.00

ID NUMBER	LOCATION NUMBER	LOCATION (CONSTRUCTION DATE) DESCRIPTION PROJECT NUMBER	COST TO FED. GOV'T	COST TO STATE	LOCAL COST	TOTAL
		<u>GUILFORD</u>				
15	26	*Guilford Point Beach (1957) 300' long groin constructed at east end of beach. BI-FC-8	15620.00	15920.00	15321.00	46861.00
16	26	*Guilford Point Beach (1959) 13,000 yd ³ of sand fill placed along 400' of shore- line west of groin, 14,585 yd ³ of mud removed. BI-FC-16		28186.00	14094.00	42280.00
		Town Total				89141.00
		<u>MADISON</u>				
17	28	*Hammonasset Park (1955) Two training(sheet steel) walls constructed at mouth of Tom's Creek 320' long and 400' long, one 800' long groin constructed at Meigs Point, 380,000 yd ³ of sand fill placed between Tom's Creek and Meigs Point. BI-T-23	163188.00	326366.00		489549.00
		*Hammonasset Park (1966) Stone groin repaired BI-FC-61		21062.00		21062.00
19	27	*Middle Beach (1957) 700' of stone revetment constructed along Middle Beach Road. BI-FC-10	8810.00	8810.00	8810.00	26430.00
		Town Total				537041.00

ID NUMBER	LOCATION NUMBER	LOCATION (CONSTRUCTION DATE) DESCRIPTION PROJECT NUMBER	COST TO FED. GOV'T	COST TO STATE	LOCAL COST	TOTAL
		<u>MILFORD</u>				
20	18	*Gulf Beach (1957) 55,000 yd ³ of sand fill placed along 1200' of beach widening it to 100'. BI-FC-4	21303.00	21303.00	21303.00	63909.00
21	18	*Gulf Beach (1966) 15,000 yd ³ of sand fill placed along 800' of beach. BI-FC-43		22650.00		22650.00
22	18	*Gulf Beach (1967) 350' of existing jetty raised and spur groin added. BI-FC-56		27191.00	13595.00	40786.00
23	173	Laurel Beach (1965) 2 groins reconstructed, one new groin constructed, 70,000' yd ³ of sand placed along 2800' of shore between 1st and 7th Avenues. BI-FC-49 A&B		60698.00	121394.00	182092.00
24	19	Morningside Beach (1963) 1500' of stone revetment constructed along Morningside Drive between Crest Place and Beacher Road. BI-FC-47		52559.00	26280.00	78839.00

ID NUMBER	LOCATION NUMBER	LOCATION (CONSTRUCTION DATE) DESCRIPTION PROJECT NUMBER	COST TO FED. GOV'T	COST TO STATE	LOCAL COST	TOTAL
<u>MILFORD (con't)</u>						
24	19	Morningside Beach (1965) 1000' of stone revetment constructed adjacent to existing revetment (above)		47690.00	22346.00	70036.00
BI-FC-57						
26	16	Silver To Cedar Beaches (1955) Fill placed along 8500' of shore		cost breakdown unavailable		333255.00
27	16	Silver Meadows End and Myrtle Beaches (1960) 223,000 yd ³ of sand fill placed along 5300' of shorefront parallel to East Broadway between Cedar and Pearl Streets.		cost breakdown unavailable		301507.00
BI-FC-19B						
28	17	Silver Sands State Park		105600.00		105600.00
29	20	Woodmont Shore (1959) 5 stone groins constructed and 170,000 yd ³ of sand fill placed between Oyster River and Merwin Point.	53838.00	46442.00	65237.00	165517.00
BI-FC-17 A&B						
39	20	Woodmont Shore (1964) 5 groins repaired, 63,000 yd ³ of sand fill placed.		42160.00	81840.00	124000.00
BI-FC-46 A&B						
Town Total						1488191.00

ID NUMBER	LOCATION NUMBER	LOCATION (CONSTRUCTION DATE) DESCRIPTION PROJECT NUMBER	COST TO FED. GOV'T	COST TO STATE	Local COST	TOTAL
<u>NEW HAVEN</u>						
31	23	*Lighthouse Point Park (1958) 380' long stone groin constructed west side of beach. BI-FC-21	3390.00	4556.00	3843.00	11789.00
		Town Total				11789.00
<u>NEW LONDON</u>						
32	36	*Neptune Park (1964) 63,000 yd ³ of sand fill placed along 800' of shore. BI-FC-26		68499.00	65901.00	134400.00
		Town Total				134400.00
<u>NORWALK</u>						
33	3	*Calf Pasture Beach (1958) Two existing groins lengthened 94,000 yd ³ of sand fill placed. BI-FC-22 A&B	56386.00	56164.00	54005.00	166555.00
		Town Total				166555.00
<u>OLD LYME</u>						
34	32	Point O'Woods (1965) 600' of revetment con- structed along Champion Road, 24,000 yd ³ of sand fill placed along 950' of shore, training wall modified. BI-FC-52		39398.00	78795.00	118193.00

ID NUMBER	LOCATION NUMBER	LOCATION (CONSTRUCTION DATE) DESCRIPTION PROJECT NUMBER	COST TO FED. GOV'T	COST TO STATE	LOCAL COST	TOTAL
<u>OLD LYME (Con't)</u>						
35	31	**White Sands Beach (1957) Stone groin constructed at west end of beach, 51,000 yd ³ of sand fill placed. BI-FC-9 A&B		24723.00	47990.00	72713.00
36	31	**White Sands Beach (1966) 2 stone groins constructed BI-FC-32		19403.00	30994.00	50397.00
37	31	**White Sands Beach (1967) 37,000 yd ³ of sand fill placed between 3 existing groins. BI-FC-44		65028.00		65028.00
		Town Total				306331.00
<u>OLD SAYBROOK</u>						
38	30	Chalker Beach (1961) 97,00 yd ³ of sand fill placed along 1600' of shore. BI-FC-15		33542.00	65890.00	99432.00
		Town Total				99432.00
<u>STAMFORD</u>						
39	2	*Cove Island (1958) 400' stone jetty con- structed at eastern end of Island 61,000 yd ³ of sand fill placed along 1300' of shore. BI-FC-23	47131.00	47584.00	46668.00	141383.00

ID NUMBER	LOCATION NUMBER	LOCATION (CONSTRUCTION DATE) DESCRIPTION PROJECT NUMBER	COST TO FED. GOV'T	COST TO STATE	LOCAL COST	TOTAL
<u>STAMFORD (Con't)</u>						
40	1	*Cummings Park (1960) Existing jetty raised and existing groin lengthened, 45,000' yd ³ of sand fill placed between structures.	26886.00	40708.00	20354.00	87948.00
		BI-FC-30				
		Town Total				229331.00
<u>STRATFORD</u>						
41	14	*Long Beach (1966) 7 stone groins constructed, 600,000 yd ³ of sand fill placed between groins.		276708.00	138354.00	415062.00
		BI-FC-41				
42	15	*Short Beach (1955) Sand fill placed along 3500' of shore between Sniffen and Stratford Points.	No cost fill from Fed. Navig. project Housatonic River			
		Town Total				415062.00
<u>WATERFORD</u>						
43	35	*Seaside Regional Center (1967) 3 stone groins rebuilt 810' of revetment constructed, 15,615 yd. ³ of sand fill placed between grions.		118593.00		118593.00
		BI-FC-59				
		Town Total				118593.00

ID NUMBER	LOCATION NUMBER	LOCATION (CONSTRUCTION DATE) DESCRIPTION PROJECT NUMBER	COST TO FED. GOV'T	COST TO STATE	LOCAL COST	TOTAL
<u>WEST HAVEN</u>						
44	20	Aimes Point (1965) 1600' of revetment constructed along Ocean Avenue between Baldwin and Hurbut Streets in front of existing seawall. BI-FC-60		35800.00	57188.00	92988.00
45	21	Prospect Beach (1957) 6 stone groins con- structed and 440,000 yd ³ of sand fill placed along Ocean Avenue between South and Ivy Streets. BI-FC-12	104573.00	139540.00	114394.00	358507.00
46	21	Prospect Beach (1973) 6 existing groins repaired, 2 additional groins constructed, 25,000 yd ³ of sand fill placed. BI-FC-71		110667.00	55333.00	166000.00
Town Total						617495.00
<u>WESTPORT</u>						
47	6	Burial Hill Beach (1957) 17,000 yd ³ of sand fill placed along 500' of shore east of Burial Hill Creek. BI-FC-7	5810.00	5810.00	5810.00	17430.00

ID NUMBER

LOCATION NUMBER

LOCATION (CONSTRUCTION DATE)
DESCRIPTION
PROJECT NUMBERCOST TO
FED. GOV'TCOST TO
STATELOCAL
COST

TOTAL

WESTPORT

48	4	*Compo Beach (1957) 2 stone groins constructed east and west of Cedar Point 260,000 yd ³ of sand fill placed between groins.	84544.00	71333.00	133667.00	289544.00
		BI-FC-13 BI-FC-2				
49	5	*Sherwood Island, State Park (1957) 2 training walls constructed at the mouth of Burial Hill Creek, one groin constructed at west end of beach, 1,070,000 yd ³ of sand fill placed along 6,000 of shore.	186830.00	581002.00		767832.00
		BI-FC-1				
50	5	*Sherwood Island State Park Existing training walls repaired.		19262.00		19262.00
		BI-FC-48				
		Town Total				1,094,068.00
		GRAND TOTAL				7425887.00

APPENDIX L
PUBLIC PARTICIPATION AND
FEDERAL CONSULTATION DOCUMENTATION

APPENDIX L

PUBLIC PARTICIPATION AND FEDERAL CONSULTATION DOCUMENTATION

TABLE 1	1976 Coastal Town Meetings
TABLE 2	CAM Regional and Cooperative Extension Service Workshops
TABLE 3	CAM Meetings with Local Officials and Municipal Commissions
TABLE 4	CAM Meetings with Organizations and Special Interest Groups
TABLE 5	CAM Meetings with State and Regional Planning Agencies
TABLE 6	CAM Interstate Meetings
TABLE 7	CAM Meetings with Federal Agencies
TABLE 8	Public Hearings on CAM Draft Legislation
TABLE 9	CAM Advisory Board Meetings
TABLE 10	Federal Consultation
Bibliography of CAM Publications	

Table 1
CAM PUBLIC MEETINGS

In 1976 CAM sponsored a series of twenty-two coastal town meetings conducted by the League of Women Voters to discuss coastal issues and problems with citizens and local officials.

<u>DATE</u>	<u>LOCATION</u>	<u>ATTENDANCE</u>
10/19/76	Guilford	30
10/26/76	Branford	19
11/3/76	Norwalk	29
11/4/76	North Haven	16
11/9/76	New London	45
11/10/76	Darien	32
11/10/76	Westport	19
11/10/76	Fairfield	36
11/10/76	Shelton	30
11/10/76	Old Lyme	29
11/11/76	Hamden	
11/11/76	Old Saybrook	40
11/12/76	Thames East (Groton, Ledyard, and Stonington)	60
11/15/76	Bridgeport	34
11/15/76	Stamford	
11/16/76	New Haven	13
11/16/76	Orange	16
11/17/76	Madison	15
11/17/76	Greenwich	28
11/18/76	Stratford	21
11/18/76	Milford	31
11/22/76	Clinton	18

Table 2

CAM REGIONAL AND COOPERATIVE EXTENSION SERVICE WORKSHOPS

A series of 12 workshops where CAM staff presented program options and recommendations for local official and public feedback.

<u>Date</u>	<u>Location and Regional Participation</u>	<u>Attendance</u>
4/12/77	<u>Waterford</u> Stonington, East Lyme, New London, Groton	9
4/20/77	<u>New Haven</u> Stratford, West Haven, Guilford, Cos Cob, Milford	11
4/28/77	<u>Stamford</u> Westport, Bethel, Fairfield	6
6/23/77	<u>Greenwich</u> Stamford	41
6/28/77	<u>Darien</u> Norwalk	44
7/6/77	<u>Bridgeport</u> Milford, Stratford, Shelton	50
7/7/77	<u>East Haven</u> Hamden, New Haven, North Haven, Orange, West Haven	40
7/12/77	<u>Chester</u> Clinton, Deep River, Lyme, Old Lyme, Old Saybrook, Westbrook	73
7/13/77	<u>Branford</u> Guilford, Madison	77
7/14/77	<u>East Lyme</u> Essex	33
7/20/77	<u>Groton</u> Montville, New London, Preston, Stonington, Waterford, Norwich, Ledyard	54
7/21/77	<u>Fairfield</u> Westport	32

Table 3

CAM MEETINGS WITH LOCAL OFFICIALS AND MUNICIPAL COMMISSIONS

Unless otherwise noted, these meetings included representatives from chief elected officials and planning and zoning, conservation, economic development, inland wetland, shellfish, and port and harbor commissions.

<u>Date</u>	<u>Group</u>	<u>Location</u>
7/8/76	Local Officials	Old Lyme
7/12/76	Local Officials	Essex
7/13/76	Local Officials	Lyme
7/13/76	Local Officials	Old Saybrook
7/20/76	Local Officials	East Lyme
7/21/76	Local Officials	Fairfield
7/21/76	Local Officials	Darien
8/5/76	Local Officials	Branford
8/5/76	Local Officials	Guilford
8/11/76	Local Officials	Clinton
8/11/76	Local Officials	Madison
8/17/76	Local Officials	Chester
8/17/76	Local Officials	Deep River
8/18/76	Local Officials	Groton
8/20/76	Local Officials	East Haven
8/20/76	Local Officials	West Haven
9/1/76	Local Officials	Bridgeport
9/1/76	Local Officials	Milford
9/2/76	Local Officials	Stratford
9/3/76	Local Officials	Norwich
9/7/76	Local Officials	Ledyard
9/10/76	Local Officials	Preston
9/16/76	Local Officials	Waterford

<u>Date</u>	<u>Group</u>	<u>Location</u>
9/17/76	Local Officials	New London
9/23/76	Local Officials	Greenwich
9/23/76	Local Officials	Westport
9/27/76	Local Officials	New Haven
9/28/76	Local Officials	Montville
9/28/76	Local Officials	Stonington
10/6/76	Local Officials	Stamford
10/13/76	Chamber of Commerce	New Haven
11/18/76	Bridgeport Harbor and Water Development Commission	Bridgeport
6/8/77	Greenwich Conservation Association	Greenwich
7/21/77	Bridgeport Harbor and Water Development Commission	Bridgeport
7/21/77	Fairfield Consumer Commission	Fairfield
11/28/77	Conservation Commission	Norwalk
12/6/77	Local Officials	Madison
12/13/77	Area Town Planners	New Haven
1/9/78	Local Officials	Guilford
1/19/78	Local Officials	Stamford
1/24/78	Local Officials	West H ven
1/26/78	Local Officials	New London
1/26/78	Local Officials	Clinton
1/26/78	Local Officials	Stratford
1/30/78	Local Officials	Norwalk
1/31/78	Local Officials	Milford

<u>Date</u>	<u>Group</u>	<u>Location</u>
1/31/78	Local Officials	Westport
2/1/78	Local Officials	Old Saybrook
2/14/78	Local Officials	Groton (town)
2/15/78	Local Officials	Essex
2/27/78	Local Officials	East Lyme
3/1/78	Local Officials	Ledyard
3/2/78	Local Officials	Madison
3/2/78	Local Officials	Greenwich
3/6/78	Local Officials	Stonington
3/8/78	Local Officials	Norwich
3/9/78	Local Officials	Preston
3/9/78	Local Officials	Lyme
3/13/78	Local Officials	Bridgeport
3/14/78	Local Officials	Old Lyme
3/14/78	Local Officials	Shelton
3/14/78	Local Officials	Westbrook
3/15/78	Local Officials	North Haven
3/17/78	S.E. Connecticut Chamber of Commerce	
3/20/78	Local Officials	Groton (city)
3/20/78	Local Officials	Hamden
3/21/78	Local Officials	Deep River
3/22/78	Local Officials	Chester
3/29/78	Local Officials	Fairfield
4/6/78	Local Officials	East Haven
4/18/78	Local Officials	Darien

<u>Date</u>	<u>Group</u>	<u>Location</u>
9/19/78	Planning and Zoning Commission	Stonington
11/14/78	Inland Wetlands Commission	Branford
11/20/78	Southeastern Connecticut Planners	Ledyard
1/4/79	Inland Wetlands Commission	Norwich
1/10/79	Greenwich Conservation Commission	Greenwich
1/16/79	Thames River Advisory Committee	Essex

Table 4
CAM MEETINGS WITH
ORGANIZATIONS AND SPECIAL INTEREST GROUPS

<u>Date</u>	<u>Organization</u>	<u>Location</u>
2/14/75	UConn Marine Advisory Service	Groton
3/3/75	Bridgeport Economic Development Corporation	Bridgeport
7/14/75	Connecticut Marine Trades Association	Stratford
10/6/75	University of Connecticut	Storrs
10/8/75	Connecticut Marine Trades Association	Meriden
10/9/75	Education Instruction, Inc.	Hartford
10/16/75	Sierra Club	Hartford
10/20/75	League of Women Voters	Old Lyme
12/9/75	Project Oceanology	Hartford
12/10/75	Project Oceanology	Groton
12/18/75	Oceanic Society	Stamford
1/12/76	Audubon Society	Hartford
1/16/76	Nature Conservancy	Middletown
1/21/76	New Haven Port Interests	New Haven
2/2/76	Yale School of Forestry	New Haven
2/20/76	Wesleyan University	Middletown
2/27/76	Yale University	New Haven
3/3/76	Yale Geology Department	New Haven
3/4/76	Essex Marine Laboratory	Hartford
3/15/76	Yale Geology Department	New Haven
3/17/76	Education Services	New Haven
4/18/76	Garden Club	Darien
4/26/76	Connecticut Forest and Park Association	Hartford

<u>Date</u>	<u>Organization</u>	<u>Location</u>
5/4/76	League of Women Voters	Old Saybrook
5/8/76	Project Oceanology	Groton
5/22/76	Yale Scientific Dredging Symposium	New Haven
6/2/76	Sierra Club	Hartford
6/3/76	League of Women Voters	Old Lyme
6/5/76	Project Oceanology	Niantic
6/19/76	Project Oceanology	Groton
8/5/76	Kiwanis Club	Hartford
8/10/76	Conservation Camp Workcoeman	Colebrook
8/17/76	Marine Advisory Service	Groton
10/11/76	Sierra Club	New Haven
10/28/76	Old Saybrook Jr. High School	Old Saybrook
11/10/76	American Assoc. of University Women	New London
11/16/76	University of New Haven	New Haven
11/18/76	Bridgeport Harbor and Waterfront Development Consortium	Bridgeport
1/6/77	Save Our Seas	Old Saybrook
2/16/77	Tunxis Community College	Farmington
2/17/77	Harbor and Waterfront Consortium	Bridgeport
3/7/77	Lions Club	East Hartford
3/16/77	Roaring Brook Nature Center	Roaring Brook
3/17/77	Noank Historical Society	Noank
3/17/77	Harbor and Waterfront Consortium	Bridgeport
3/27/77	St. Luke's Adult Forum	Gales Ferry
3/29/77	League of Women Voters	Essex

<u>Date</u>	<u>Organization</u>	<u>Location</u>
4/4/77	Connecticut Marine Trades Association	Hartford
4/21/77	Schooner, Inc.	New Haven
4/21/77	Harbor and Waterfront Consortium	Bridgeport
4/27/77	Westbrook Council and Beach Association	Westbrook
4/30/77	Connecticut Audubon Council	Hartford
5/4/77	Meriden Library Environmental Discussion Group	Meriden
5/13/77	Meriden Library Environmental Discussion Group	Meriden
5/19/77	Harbor and Waterfront Consortium	Bridgeport
6/7/77	American Petroleum Institute	Hartford
6/14/77	League of Women Voters	Hartford
6/27/77	Stony Creek Association	Stony Creek
6/30/77	Adult Education Class	Hartford
7/21/77	Harbor and Waterfront Consortium	Bridgeport
8/3/77	Rotary	Guilford
8/16/77	Rotary	North Haven
8/18/77	Harbor and Waterfront Consortium	Bridgeport
9/15/77	League of Women Voters	Newtown
9/15/77	Harbor and Waterfront Consortium	Bridgeport
9/20/77	Harbor and Waterfront Consortium	Bridgeport
9/21/77	League of Women Voters	Glastonbury
9/29/77	League of Women Voters	New Britain
9/30/77	Environmental Caucus	Hartford
10/3/77	Housatonic River Power Squadron	
10/3/77	Daughters of the American Revolution	East Hartford
10/5/77	League of Women Voters	Wallingford

<u>Date</u>	<u>Organization</u>	<u>Location</u>
10/6/77	League of Women Voters	Orange
10/24/77	Lions Club	Branford
10/25/77	Oceanic Society	New Haven
10/27/77	Mansfield Middle School Biology Class	Mansfield
11/10/77	School Guild	Groton
11/14/77	Quota Club	Glastonbury
11/11/77	Historical Society	Clinton
11/15/77	Western Connecticut State College	Danbury
11/16/77	Rotary	Enfield
11/18/77	Oceanic Society	Stamford
12/7/77	Rotary	Guilford
12/7/77	League of Women Voters	Old Lyme
12/14/77	Mattabesick Audubon Society	
1/4/78	Exchange Club	Madison
1/9/78	Institute of Real Estate Appraisers	
1/19/78	Harbor and Waterfront Consortium	Bridgeport
2/16/78	Oceanic Society	New Haven
3/21/78	Women's Club	Hebron
4/18/78	Garden Club	Darien
5/10/78	American Assoc. of Univeristy Women	Clinton
5/19/78	American Chemist Society	New Haven
6/19/78	Naugatuck Valley Audubon	Shelton
7/28/78	American Petroleum Institute	Hartford
10/10/78	Garden Club	Wallingford
10/19/78	Kiwanis Club	Norwalk

<u>Date</u>	<u>Organization</u>	<u>Location</u>
10/23/78	Amity Jr. High School	Amity
10/24/78	Gilbert School	Winsted
10/25/78	Meriden Power Boat Squadron	Meriden
10/28/78	Appalachian Mountain Club	Norwich
11/14/78	Marina Operators	Branford
11/27/78	Earth Stewardship Group	New Haven
1/23/79	Riverside Association	Greenwich
2/5/79	New Haven Chamber of Commerce	New Haven
2/5/79	Sierra Club	New Haven
2/6/79	Southeastern Connecticut Chamber of Commerce	New London

Table 5
CAM MEETINGS WITH
STATE AND REGIONAL PLANNING AGENCIES

<u>Date</u>	<u>Meeting</u>
2/4/75	Southeastern Connecticut RPA - CZM Task Force
2/26/75	Southeastern Connecticut RPA - CZM Task Force
3/17/75	Southeastern Connecticut RPA - CZM Task Force
5/15/75	Southeastern Connecticut RPA - CZM Task Force
7/9/75	Coastal RPA's - Directors Meeting
7/23/75	Coastal RPA's - Directors Meeting
7/29/75	Department of Planning and Energy Policy (presently Office of Policy and Management - <u>OPM</u>)
9/22/75	Greater Bridgeport RPA
9/26/75	Coastal RPA's - Staff
10/14/75	Coastal RPA's - Directors Meeting
10/22/75	Southeastern Connecticut RPA - CZM Task Force
11/3/75	Coastal RPA's - Directors Meeting
11/17/75	Coastal RPA's - Directors Meeting
11/21/75	Coastal RPA's - Directors and Staff
12/31/75	Department of Planning and Energy Policy (presently OPM)
1/5/76	RPA of South Central Connecticut
1/5/76	Department of Planning and Energy Policy (presently OPM)
1/6/76	Connecticut River Estuary RPA
1/6/76	Southeastern Connecticut RPA
1/7/76	Greater Bridgeport RPA
1/7/76	Valley RPA
1/8/76	Interagency Water Resources Planning Board
1/12/76	South Western RPA

<u>Date</u>	<u>Meeting</u>
1/20/76	Department of Planning and Energy Policy (presently OPM)
2/10/76	Department of Commerce
2/27/76	Coastal RPA's - Directors Meeting
3/9/76	Southeastern Connecticut RPA
3/9/76	Connecticut River Estuary RPA
3/12/76	Coastal RPA's - Directors Meeting
3/16/76	Coastal RPA's - Directors Meeting
4/12/76	Department of Commerce
4/14/76	Department of Planning and Energy Policy (presently OPM)
4/21/76	South Western RPA
4/22/76	Central Connecticut RPA
4/29/76	Central Connecticut RPA - Directors Meeting
5/18/76	Greater Bridgeport RPA
5/27/76	Coastal RPA's - Directors Meeting
6/23/76	South Western RPA - CAM Committee
6/29/76	Department of Commerce
6/29/76	Department of Planning and Energy Policy (presently OPM)
9/23/76	Connecticut River Estuary RPA
9/24/76	South Western RPA
9/29/76	Connecticut River Estuary RPA
10/26/76	Department of Planning and Energy Policy (presently OPM)
11/3/76	Department of Planning and Energy Policy (presently OPM)
11/5/76	Natural Resources Center
11/9/76	Southeastern Connecticut RPA
11/12/76	South Western RPA
11/16/76	Connecticut River Estuary RPA

<u>Date</u>	<u>Meeting</u>
11/16/76	Department of Commerce
11/19/76	Valley RPA
11/23/76	RPA of South Central Connecticut
11/30/76	Valley RPA
1/31/77	Southeastern Connecticut RPA
3/29/77	County Extension Agents (UConn)
4/12/77	Department of Commerce
4/29/77	Department of Planning and Energy Policy (presently OPM)
6/6/77	Connecticut River Estuary RPA
6/10/77	Department of Planning and Energy Policy (presently OPM)
6/28/77	Natural Resources Center
8/16/77	Southeastern Connecticut RPA
8/25/77	Coastal RPA's - Directors Meeting
8/30/77	Coastal RPA's - Directors Meeting
9/7/77	Southeastern Connecticut RPA
9/12/77	Connecticut River Estuary RPA
9/15/77	RPA of South Central Connecticut
10/12/77	Natural Resources Center
12/8/77	Department of Commerce
12/8/77	Valley RPA
12/13/77	RPA of South Central Connecticut
12/19/77	Department of Commerce
12/20/77	Southeastern Connecticut RPA
12/21/77	Natural Resources Center
1/9/78	Connecticut Association of Real Estate Appraisers
1/17/78	Office of Policy and Management

<u>Date</u>	<u>Meeting</u>
2/21/78	Department of Transportation
3/3/78	South Western RPA
3/17/78	Southeastern Connecticut Chamber of Commerce
6/23/78	Office of Policy and Management
8/11/78	Office of Policy and Management
10/4/78	Natural Resources Center
10/5/78	South Western RPA
10/6/78	Department of Transportation
10/11/78	Connecticut River Estuary RPA
10/11/78	Southeastern Connecticut RPA
10/17/78	RPA of South Central Connecticut
10/24/78	Valley RPA
11/13/78	Natural Resources Center
11/13/78	Southeastern Connecticut RPA
11/20/78	Southeastern Connecticut Town Planners Association
11/21/78	Office of Policy and Management
12/8/78	Office of Policy and Management
1/3/79	Office of Policy and Management

Table 6
CAM INTERSTATE MEETINGS

<u>Date</u>	<u>Meeting</u>
1/3/75	University of Rhode Island - CZM Plan and Coordination
1/7/75	Princeton University - Strategy Seminar on OCS Development
3/8/75	New England River Basins Commission (NERBC) - OCS Task Force
3/24/75	NERBC
3/25/75	University of Rhode Island - Seminar Coastal Remote Sensing
4/30/75	NERBC - CZM Task Force
5/1/75	NERBC
6/6/75	New York State Officials
6/11/75	NERBC
6/27/75	NERBC
7/21/75	OCS Task Force
8/8/75	NERBC - OCS Task Force
8/14/75	NERBC
9/4/75	NERBC - OCS Task Force
9/5/75	Massachusetts Energy Office
9/8/75	NERBC - RALI Project
9/26/75	NERBC - OCS Task Force
9/29/75	NERBC - CZM Task Force
10/21/75	NERBC - CZM Task Force
10/22/75	Outdoor Recreation Officials, New England States
10/23/75	New York CZM Program
11/19/75	NERBC
12/17/75	NERBC - CZM Task Force
2/4/76	NERBC - RALI Project
2/10/76	NERBC - CZM Task Force

<u>Date</u>	<u>Meeting</u>
2/17/76	NERBC
3/25/76	Rhode Island Coastal Resources Council
3/30/76	NERBC
4/12/76	Conference on Coastal Recreation
4/27/76	NERBC
5/19/76	NERBC - RALI Project
5/27/76	NERBC - CZM Task Force
6/10/76	New York CZM Program
7/20/76	NERBC - CZM Task Force
9/9/76	NERBC - RALI Project
9/22/76	University of Rhode Island Workshop
9/28/76	NERBC - CZM Task Force
11/4/76	NERBC - CZM Task Force
11/17/76	NERBC - Long Island Sound Study
11/22/76	NERBC - OCS Task Force
12/10/76	North Atlantic OCS
12/17/76	NERBC - Long Island Sound Study
1/18/77	NERBC - CZM Task Force
3/1/77	NERBC - CZM Task Force
3/14/77	NERBC - CZM Task Force
3/24/77	NERBC - RALI Project
3/28/77 to 3/30/77	American Society of Planning Officials
4/13/77	NERBC - CZM Task Force
4/28/77	NERBC - CZM Task Force
5/16/77	NERBC - CZM Task Force

<u>Date</u>	<u>Meeting</u>
6/2/77	NERBC - CZM Task Force
6/7/77	NERBC
7/6/77	NERBC - RALI Project
9/21/77	NERBC - CZM Task Force
10/27/77	NERBC - CZM Task Force
11/4/77	Tri-State Meeting
11/8/77	NERBC - Ports and Harbors Project
12/6/77	NERBC - CZM Task Force
2/2/78	NERBC - CZM Task Force
3/15/78	NERBC
4/6/78	NERBC - CZM Task Force
4/25/78	Tri-State Regional Planning Agency
5/22/78	NERBC - RALI Project
6/14/78	NERBC - CZM Task Force
9/7/78	NERBC - CZM Task Force
12/14/78	NERBC - CZM Task Force
12/18/78	NERBC - Dredge Spoil Disposal Task Force
1/25/79	NERBC - Dredge Spoil Disposal Task Force

Table 7
CAM MEETINGS WITH FEDERAL AGENCIES

8-11-75	Bureau of Land Management
9-2-75	Bureau of Land Management
1-9-76	Bureau of Land Management
1-15-76	U.S. Army Corps of Engineers
2-20-76	U.S. Army Corps of Engineers
2/26/76	Bureau of Land Management
3-30-76	U.S. Army Corps of Engineers
4-13-76	U.S. Geological Survey
5-21-76	Conn Rail/Amtrac
7-29-76	Bureau of Land Management
8-2-76	Bureau of Land Management
8-6-76	U.S. Army Corps of Engineers
8-9-76	Bureau of Land Management
8-20-76	U.S. Army Corps of Engineers
8-31-76	U.S. Geological Survey
9-15-76	Federal Agencies Workshop
9-20-76	Soil Conservation Service
9-22-76	U.S. Army Corps of Engineers
3-25-77	Bureau of Land Management
4-4-77	Bureau of Land Management
6-8-77	Bureau of Land Management
7-6-77	Coastal Energy Impact Program Conference
7-25-77	Bureau of Land Management
8-3-77	U.S. Geological Survey Conference
8-22-77	Soil Conservation Service
10-19-77	Bureau of Land Management

CAM MEETINGS WITH FEDERAL AGENCIES

1-18-78	Soil Conservation Service
2-22-78	EPA CZM Task Force
7-18-78	Soil Conservation Service
7-26-78	U.S. Geological Survey
10-5-78	U.S. Army Corps of Engineers
12-4-78	U.S. Coast Guard

Table 8

PUBLIC HEARINGS ON CAM DRAFT LEGISLATION

<u>Date</u>	<u>Location</u>
3/6/78	Hamden
3/7/78	Bridgeport
3/8/78	Stamford
3/9/78	New London
3/10/78	Hartford
10/17/78	Stamford
10/18/78	Norwalk
10/24/78	New Haven
10/25/78	Guilford
10/26/78	Groton
11/1/78	Hartford
11/2/78	Waterford
11/2/78	Stratford
11/9/78	Norwich
11/14/78	Old Saybrook
3/22/79	Bridgeport
3/26/79	Hartford
3/26/79	Stamford
3/27/79	Hamden
3/28/79	Groton
3/29/79	Clinton

Table 9
CAM ADVISORY BOARD MEETINGS

<u>Date</u>	<u>Location</u>	<u>Date</u>	<u>Location</u>
12/4/74	Hartford	9/22/76	Bridgeport
1/29/75	New Haven	10/27/76	Waterford
2/26/75	Hartford	12/15/76	Milford
3/26/75	Essex	3/2/77	Milford
5/22/75	Hartford	3/30/77	Stratford
6/16/75	Milford	4/27/77	Wethersfield
7/16/75	Haddam	5/25/77	Essex
7/30/75	Hartford	7/27/77	New Haven
8/20/75	Essex	11/2/77	New Haven
10/2/75	Hartford	11/30/77	Milford
10/22/75	New Haven	2/1/78	New Haven
11/26/75	New Haven	3/1/78	New Haven
1/14/76	Milford	4/5/78	New Haven
2/25/76	New Haven	5/24/78	Waterford
3/24/76	New Haven	8/2/78	Milford
4/28/76	New Haven	8/30/78	Milford
5/26/76	New Haven	10/25/78	Waterford
6/30/76	Hartford	12/6/78	New Haven
7/28/76	Stratford	1/17/79	Milford
		2/28/79	Wethersfield
		4/4/79	Wethersfield

Table 10
FEDERAL CONSULTATION

Federal Department/Agency Contacted - Agency Representative	Federal Agency Workshop Representation - 9/15/76	Draft Legislation - 1978 *	Coastal Goals and Policies		National Interest and Federal Consistency Questionnaire	
			Sent	Response	Sent	Response
Council on Environmental Quality (Washington, D.C.) K. Gillman		X	X		X	
Department of Agriculture/Soil Conservation Service (Washington, D.C.) - R.M. Davis		X	X	X	X	
Department of Agriculture/Soil Conservation Service (Storrs, Connecticut) - J.W. Tippie	X		X	X	X	X
Department of Agriculture/Forest Service (Portsmouth, New Hampshire) - K. Johnson, R. Knutson	X	X	X		X	
Department of Commerce (Boston, Massachusetts) J.S. Motley, Jr.	X	X	X		X	
Department of Commerce/Economic Development Administration (Philadelphia, Pennsylvania) - J. Curran		X	X		X	
Department of Commerce/Economic Development Administration (Washington, D.C.) - E. Hickey		X	X		X	
Department of Commerce/Economic Development Administration (Hartford, Connecticut) - T. Dudeck, C. Hammarlund	X					
Department of Commerce/Maritime Administration (Washington, D.C.) - J.R. Carmon	X	X	X		X	
Department of Commerce/Maritime Administration (New York, New York) - Captain King		X	X		X	
Department of Commerce/National Marine Fisheries Service (Gloucester, Massachusetts) - C. Mantazaris	X	X	X	X	X	X

* No responses on draft legislation were received.

FEDERAL CONSULTATION

	Federal Agency Workshop Representation - 9/15/76	Draft Legislation - 1978 *	Coastal Goals and Policies		National Interest and Federal Consistency Questionnaire	
			Sent	Response	Sent	Response
Department of Defense/Air Force (Atlanta, Georgia) - Captain Gray		X			X	X
Department of Defense/Air Force/Natural Resources Officer (Washington, D.C.) - E. Bedker		X			X	
Department of Defense/Air Force (Atlanta, Georgia) - R.L. Wong	X	X	X	X		
Department of Defense/Army/Corps of Engineers (New York, New York) - North Atlantic Division, no designated representative.		X	X	X	X	
Department of Defense/Army/Corps of Engineers/ Northeast Division (Waltham, Massachusetts) - G. Blodgett		X	X		X	
Department of Defense/Army/Natural Resources Branch (Washington, D.C.) - V. Mays		X	X		X	
Department of Defense/ Installations and Housing (Washington, D.C.) - P.J. Fliakas		X	X		X	
Department of Defense/Real Property and Natural Resources Division/Installations and Housing (Washington, D.C.) - F.B. Roche		X	X		X	
Department of Defense/Navy/First District (Philadelphia, Pennsylvania) - Commander Engle		X	X		X	X
Department of Defense/Navy/Third District (Brooklyn, N.Y.)	X					
Department of Defense/Navy/Fourth District (Philadelphia, Pennsylvania) - Commander Carnell			X	X		

FEDERAL CONSULTATION

National Interest and Federal Consistency Questionnaire	Response Sent	Coastal Goals and Policies		Draft Legislation - 1978 *	Federal Agency Workshop Representation - 9/15/76
		Response Sent	Response		
Department of Defense/Navy/U.S. Naval Submarine Base (Groton, Connecticut) - Commander Peterson					X
Department of Defense/Navy/Environmental Quality Division (Alexandria, Virginia) - Lt. Commander Yeske	X	X		X	
Department of Defense/Connecticut Military Department (West Simsbury, Connecticut) - L.E. Carter	X	X		X	X
Department of Defense/Army/Corps of Engineers/Directorate of Civil Works (Washington, D.C.) - J. Housely	X	X		X	
Department of Energy/Office of Siting (Washington, D.C.) - E. Turner	X	X	X		
Department of Health, Education and Welfare/Regional Administration (Boston, Massachusetts) - W. McFague	X	X		X	
Department of Health, Education and Welfare/Planning Systems (Washington, D.C.) - G. Britten	X	X			
Department of Housing and Urban Development/Regional Administration (Boston, Massachusetts) - H.G. Thompson	X	X		X	X
Department of Housing and Urban Development (Washington, D.C.) - M. Wachs		X			
Department of Housing and Urban Development/Community Planning (Washington, D.C.) - J. Selvaggi	X				
Department of the Interior/Regional Administration (Boston, Massachusetts) - R. Ryder, W. Patterson	X	X			X

FEDERAL CONSULTATION

	Federal Agency Workshop Representation - 9/15/76	Draft Legislation - 1978 *		Coastal Goals and Policies		National Interest and Federal Consistency Questionnaire	
				Sent	Response	Sent	Response
Department of the Interior/Bureau of Indian Affairs (Washington, D.C.) - H. Rainbolt				X		X	
Department of the Interior/Bureau of Land Management/ Regional Office (Silver Spring, Maryland) - R. Arndt				X		X	
Department of the Interior/Bureau of Land Management/ OCS Office (New York, New York) - R. Barnett		X		X	X	X	X
Department of the Interior/Bureau of Mines (Newmarket, New Hampshire) - W. Barton	X	X		X		X	X
Department of the Interior/Bureau of Mines/Environmental Coordination (Washington, D.C.) - W.L. Dare				X		X	
Department of the Interior/Bureau of Mines/Field Operations Center (Pittsburgh, Pennsylvania) - R.D. Thomson					X	X	
Department of the Interior/Fish and Wildlife Service (Boston, Massachusetts) - R. Andrews	X	X					
Department of the Interior/Fish and Wildlife Service (Concord, New Hampshire) - Field Supervisor	X			X		X	
Department of the Interior/Geological Survey (Reston, Virginia) - R. Schoen		X		X		X	X
Department of the Interior/Geological Survey (Hartford, Connecticut) - D. McCartney				X		X	
Department of the Interior/Heritage Conservation and Recreation Service (Philadelphia, Pennsylvania) - R. Gift		X		X	X	X	X

FEDERAL CONSULTATION

National Interest and Federal Consistency Questionnaire	Response							
	Sent	X						
Coastal Goals and Policies	Response							
	Sent	X	X	X	X	X	X	X
Draft legislation - 1978 *		X	X	X	X	X	X	X
Federal Agency Workshop Representation - 9/15/76					X		X	

FEDERAL CONSULTATION

	Federal Agency Workshop Representation - 9/15/76	Draft Legislation - 1978 *	Coastal Goals and Policies		National Interest and Federal Consistency Questionnaire	
			Sent	Response	Sent	Response
Department of Transportation/Coast Guard/Third District (New York, New York) - R. Wilderman	X	X	X	X	X	
Department of Transportation/Federal Aviation Administration (Burlington, Massachusetts) - W.E. Crosby		X	X	X	X	X
Department of Transportation/Federal Highway Administration (Albany, New York) - Regional Administrator		X	X	X	X	X
Department of Transportation/Federal Railroad Administration/ Region I (Philadelphia, Pennsylvania) - H. Levine		X	X		X	
Energy Research and Development Administration/Division of Biochemical and Environmental Research (Washington, D.C.) - J. Swinebroad		X	X		X	
Energy Research and Development Administration (Washington, D.C.) - J.L. Liverman		X	X		X	
Brookhaven National Laboratory (Upton, New York) - S. Munson		X	X	X	X	X
Environmental Protection Agency/Regional Office (Boston, Massachusetts) - D. White	X	X	X		X	
Environmental Protection Agency/Office of Federal Activities (Washington, D.C.) - R. Hanmer		X	X		X	
Federal Energy Administration/Regional Office (Boston, Massachusetts) - R.W. Mitchell, K. Meehan		X	X		X	
Federal Energy Regulatory Commission/Office of Energy Systems (Washington, D.C.) - C. Schuster		X	X	X	X	X

FEDERAL CONSULTATION

National Interest and Federal Consistency Questionnaire	Response	Coastal Goals and Policies	Response	Draft Legislation - 1978 *	Federal Agency Workshop Representation - 9/15/76
	Sent				
Federal Power Commission (New York, New York) - J.D. Hebson	X	X	X	X	X
General Services Administration/Regional Office (Boston, Massachusetts) - B.L. James	X	X	X	X	X
General Services Administration/Environmental Affairs (Washington, D.C.) - A. Kauders	X	X	X		
Marine Mammal Commission (Washington, D.C.) - L. Ganna	X	X	X	X	
Nuclear and Regulatory Commission (Washington, D.C.) - A. Roberts, F. Young	X	X	X	X	

PUBLICATIONS OF THE CONNECTICUT
COASTAL AREA MANAGEMENT (CAM) PROGRAM
DEPT. OF ENVIRONMENTAL PROTECTION
HARTFORD, CT

September, 1978

LAND'S END The CAM Program's quarterly newsletter, which discusses CAM activities and progress as well as general coastal news.

Developer's Handbook, by Allen Carroll (January 1976). Clarifies the existing environmental regulations and explains why they are necessary. Illustrates the major natural systems and resources, and summarizes the opportunities and limitations they impose on development.

Who's Minding the Shore?: A Citizens Guide to Coastal Management, by the Natural Resources Defense Council (August 1976). Discusses the requirements of the federal Coastal Zone Management Act, criteria for judging the adequacy of a management program, some of the problems involved in coastal zone planning, and how citizens can get involved in the planning process.

Proceedings of the Federal Agencies Workshop. In September, 1976 CAM sponsored a workshop for federal agency representatives to discuss their agency's positions and concerns in relation to coastal area management. The proceedings include a list of participants and a verbatim record of position statements and questions.

Final Report and Evaluation of the League of Women Voters Education Fund Coastal Area Project (December 1976). Describes how and why the League (under a grant from CAM) sponsored public meetings on coastal area management in 23 coastal towns. Evaluates the project and summarizes the opinions that citizens expressed at the meetings.

A Citizen's Handbook to Coastal Area Management, prepared by the Long Island Sound Taskforce under the supervision of the CAM Staff (June 1977). Discusses, in a non-technical style, the objectives and requirements of the federal Coastal Zone Management Act and reasons for adopting a coastal management program in Connecticut. Describes the various options which were considered for the program and outlines CAM's preliminary recommendations.

Long Island Sound: An Atlas of Natural Resources, prepared under the supervision of the CAM staff (December 1977). Provides basic information about the resources and processes of Long Island Sound and the Connecticut shorelands. Discusses shoreline features and processes, physical oceanography, and the numerous plant and animal species found in and along the Sound. Written in a non-technical style and including numerous illustrations, it serves as a basic guide which citizens can use to better understand and enjoy Connecticut's coastal resources.

TECHNICAL PLANNING REPORTS

These reports are prepared to provide insight and encourage discussion on coastal management issues. The views and recommendations expressed are the authors', and do not necessarily reflect the policies, official or unofficial, of the CAM Program or Advisory Board.

Planning Reports #1 and #3 are no longer available.

Coastal Area Management: A Look at Issues and Alternatives, prepared by the Southeastern Connecticut Regional Planning Agency (October 1975). A pilot study to recommend policies, programs and procedures by which local governments and regional planning agencies could be effectively involved in coastal area management processes. Reviews major issues in coastal management, models for management, and conclusions and policy options.

Planning Report #2: An Analysis of Federal Regulations Relating to Management System Approval under the Coastal Zone Management Act of 1972, by Alan Kaufman, Esq. (November 1975). An independent review of federal regulations governing state planning and implementation of coastal zone management programs. Discusses both procedural and substantive requirements.

Planning Report #4: A Review of the Administration of Coastal Regulatory Programs and A Memorandum of the Constitutional Limits of the Police Power, by Stephen R. Bosworth (August 1975). Describes and evaluates the effectiveness of permit programs and local zoning systems. The constitutional limits of these regulatory programs are reviewed in light of specific court decisions.

Planning Report #5: A Review of Existing CZM Programs and Recommendations for the Connecticut Coastal Management System, by Alan Kaufman, Esq. (November 1975). Provides a comparative analysis of current coastal management legislation and programs in seven states other than Connecticut, and suggests possible components for Connecticut's program.

Planning Report #6: Local Regulation of "Inland Wetlands" in Connecticut: A Prototype "Management Program" under the Coastal Zone Management Act of 1972?, by Russell Brennemen, Esq. (November 1975). Provides (1) a brief history of the inland wetlands law and implementation by local communities, (2) a description of the experience of 15 selected towns which regulate inland wetlands, and (3) a discussion of the strengths and weaknesses of the inland wetlands approach as a model for a federally-approvable coastal management system for Connecticut.

Planning Report #7: Administrative Alternatives in Siting Facilities of Regional Benefit, by Timothy Backstrom (August 1976). Outlines a strategy for meeting the Coastal Zone Management Act's requirement that facilities of regional benefit or national interest are not "unreasonably" restricted or excluded from the coastal area.

Planning Report #8: Residential Associations in the Coastal Area, by Linda Krause (December 1976). Identifies sub-town residential associations in the coastal area whose members have significant control over the use and development of their area. Examines these associations' authority, their relationship to the town in which they are located, and their influence and impact on the State's coastal resources. Suggests considerations for their role in a coastal management structure.

Planning Report #9: Major Public and Private Interests in the Coastal Area: An Overview of the Present Management System, by Linda Krause (August 1976). Explores major interests in the coastal area and discusses their characteristics. Briefly discusses the many ways in which coastal interests interact, which comprises the present "coastal management" system. Special attention is given to government interest.

Planning Report #10: Redevelopment and Reuse and Connecticut's Coast, by Dorothy Moore (August 1976). Reviews the process of the redevelopment and reuse of urban areas (with particular reference to Connecticut's coastal area) in order to evaluate the extent to which this process could be incorporated into a coastal management plan.

Planning Report #11: Cities and Towns of Connecticut: Their Contribution to an Effective Coastal Area Management Program, by Richard Brooks, Esq. (December 1976). A summary of a series of in-depth reports (#12-#15) on participation at the local level in a shared state-local coastal management system. Summarizes legal and institutional obstacles to implementing such a system. Discusses various options for the local component and includes recommendations for both legal and administrative reforms for each set of options.

Planning Report #12: Local Land Use Regulatory Alternatives Providing Localities With Simplified Procedures for Regulating Development, by Richard Brooks, Esq. and George Kral (December 1976). Background report on the types of reform necessary for existing municipal land use regulatory programs to meet the requirement of an effective shared state-local management system. Discusses problems and shortcomings with existing procedures and analyzes both existing and proposed models as options for change.

Planning Report #13: Local Land Use Regulatory Program Alternatives: Providing a Mechanism for Technical Assistance, by George Kral and Richard Brooks, Esq. (December 1976). Background report on alternatives for providing technical assistance to towns. Covers the history of previous efforts and discusses both existing and future needs that might be met to support a shared state-local coastal management system.

Planning Report #14: A Discription and Assessment of the Existing System of Connecticut's Local Land Use Controls for Coastal Zone Management for Environmental Purposes, by Richard Brooks, Esq. (December 1976). Describes and evaluates the existing system of land use regulatory controls at the municipal level for the purposes of a shared state-local management system. Focuses on existing municipal powers and their relationships to other governmental powers and programs.

Planning Report #15: Applicability of Other State Approaches to Establishing Local Participation in Coastal Area Management, by Richard Brooks, Esq. (December 1976). Describes the approaches other states have considered in implementing coastal management systems. The perspective is one of strong participation at the municipal level, and various methods of achieving coastal management goals and objectives through local regulation are analyzed.

Planning Report #16: Major Policy Options for State Involvement in Coastal Management, by Peter Cooper, Esq. (January 1977). Discusses major policy options for the participation in coastal management by the major State agencies. Analyzes the potential for resolution of conflicts between competing interests within the existing structure of state programs and suggests necessary modifications.

Planning Report #17: Selected Statistical Summary: Second Year RPA Reports, by Linda Krause (January 1977). The CAM Program contracted with the six coastal regional planning agencies in 1976 for the collection and analysis of information within their coastal planning area, to be used in preparing management options. This report is not a summary of the RPA reports, but an effort to indicate the type of information that has been gathered.

Planning Report #18: Authority and Management Requirements Under the Coastal Zone Management Act, by Alan Kaufman, Esq. (February 1977). Assesses existing land and water use regulation in the context of determining the State's ability to use existing statutory authority to create a coastal management system which meets the federal requirements. Existing deficiencies are discussed and recommendations are given.

Planning Report #19: The Taking Issue and Environmental Regulation, by John Laager (August 1976). Discusses, from a case law perspective, how Connecticut courts have treated the issue of taking without compensation when regulations reduce the usability of land.

Planning Report #20: Discussion Papers: Options and Recommendations, prepared by the CAM staff (April, 1977). Presents CAM's recommendations on: a management boundary; authority for implementing a management program; a procedure for designating areas of particular concern; and a method for determining permissible uses. Discusses in detail the requirements of the federal Coastal Zone Management Act of 1972, the advantages and disadvantages of all the options considered, and the reasons for CAM's recommendations.

Planning Report #21: Discussion Papers: Options and Recommendations, Part II, prepared by the CAM staff (May, 1977). Discusses CAM recommendations as in Planning Report #20, but outlines two additional components of the management program: coordination with State planning programs; and analysis of existing regulatory programs.

Planning Report #22: The Onshore Assessment of the Economic, Social and Environmental Impacts of OCS Facilities, by David Stockton (August, 1976). Attempts to assess for Connecticut the impacts that may be generated by the major facilities related to Outer Continental Shelf petroleum development. Specifically considers the generic socio-economic and environmental impacts associated with these facilities.

Planning Report #23: Local Fiscal Impact Model, Part I: Theory, by David Stockton (September, 1977). Designed to aid local decision makers who must weigh many factors when considering economic development within their community. Presents a systematic framework for the collection, estimation and interpretation of the major local fiscal impacts generated by economic development.

Planning Report #24: Local Fiscal Impact Model II: Application, by David Stockton (September, 1977). Applies the local fiscal impact model outlined in Part I to a recent small manufacturing development in Essex.

Planning Report #25: Recreational Demand, Opportunities and Limitations in Connecticut's Coastal Area, by Margaret N. Schneider (March, 1978). This report proposes a recreational planning process based on the evaluation of Connecticut's coastal resources and existing recreational facilities. It includes a statistical breakdown of shorefront usage and ownership and recommendations for recreational potential in keeping with Connecticut's existing statewide plan of outdoor recreation (SCORP).

Planning Report #26: Recommended Coastal Goals and Policies. Presents the proposed goals and policies for Connecticut's Coastal Area Management Program that will set the direction and framework for the program and will provide the basis for making predictable, consistent and coordinated coastal management decisions at all government levels. The report also includes a listing of existing and needed statutory authority to implement the goals and policies.

Planning Report #27: Report to the Legislature's Committee on Coastal Management, (September, 1978). A comprehensive document containing specific proposals for a shared state, local coastal area management program for Connecticut. The report contains information requested by the General Assembly in the 1978 session, a redraft of legislative proposals for a CAM program and several appendices including a boundary map, Coastal Site Plan Review Advisory Guidelines, Coastal Goals and Policies and more.

Planning Report #28: Model Municipal Coastal Program, prepared by the CAM staff (January, 1979). The purpose of the model program is to illustrate the types of changes to current municipal plans and regulations that would be necessary to meet the purposes of local coastal management. The report provides a simple, hypothetical example of a municipal coastal program which is consistent with the criteria for coastal programs contained in recommended legislation submitted to the General Assembly by the CAM Program.

